



# Science For A Better Life

Sustainable Development Report 2005



# Sustainable Development Report 2005

**This year's Sustainable Development Report is also the first to depict the relevant information for Bayer AG in its new structure – without Lanxess AG. It continues our Group's long tradition of environmental and sustainability reporting that began with the publishing of our first report with economic, social and environmental data in 1976.**

## Reporting objectives and method

Like our previous reports, the Sustainable Development Report 2005 is designed to give an insight into our commitment to sustainable development and is aimed primarily at stockholders, business partners, employees and the media. However, the publication also addresses non-governmental organizations, suppliers and authorities with whom we want to further intensify our dialogue on achieving a rational balance between economic, social and ecological considerations. The brochure is intended to demonstrate to the general public how we implement our commitment to the ten principles of the United Nations Global Compact (see page 88). Through this publication we also comply with the OECD Guidelines for Multinational Enterprises, 2000 revision ("Disclosure").

We have aligned ourselves to the guidelines of the Global Reporting Initiative (GRI) on sustainability reporting, and are actively involved in its further development. An index on the back inside cover

lists the pages on which the Report provides information on the individual GRI indicators. The statements provided here apply to all sites and activities of the Bayer Group. Our environmental and safety data cover companies in which we have a share of more than 51 percent. A worldwide recording system is being established for some social performance indicators. This Report is published in German, English and Spanish. Our next Sustainable Development Report is due to be published in 2007.

[www](http://www.sd2005.bayer.com)

## Further information on the internet

The printed publication is supplemented by further information given on our website. The Report contains references to enable easier access: Under [www.sd2005.bayer.com](http://www.sd2005.bayer.com) you will find a page entitled "Additional Info Links." Here, all references are listed with a corresponding code number. By clicking on these you will go to the desired information.

## Bayer Group Key Data

	2004	2005	Change
€ million			%
Net sales	23,278	27,383	17.6
EBITDA <sup>1</sup>	3,834	4,647	21.2
Operating result (EBIT)	1,875	2,812	50.0
Income before income taxes	1,222	2,199	80.0
Net income	685	1,597	133.1
Stockholders' equity (total, i.e. including discontinued operations)	10,943	11,157	2.0
Total assets (total, i.e. including discontinued operations)	37,588	36,722	- 2.3
Capital expenditures	977	1,388	42.1
Employees at year end <sup>2</sup>	91,700	93,700	2.2
Personnel expenses	6,026	5,912	- 1.9
Research and development expenses	1,927	1,886	- 2.1

<sup>1</sup> EBITDA: Operating result (EBIT) plus depreciation and amortization

<sup>2</sup> A table indicating the distribution of employees according to region can be found on page 78.



Strategic management in the Bayer Group is kept separate from everyday business activities. The subgroups and service companies operate independently under the leadership of the management holding company Bayer AG, which defines common values, goals and strategies for the entire enterprise and is headed by the four-member Group Management Board. The Corporate Center supports the Group Management Board in its tasks and also performs certain common functions for the subgroups.



## Bayer HealthCare

Bayer HealthCare plays a major role in improving the health of people and animals by researching, developing, manufacturing and marketing innovative products for disease prevention, diagnosis and treatment. Following the merger of the Biological Products and Pharmaceuticals divisions to form a new organizational unit effective January 1, 2006, the activities of Bayer HealthCare are now organized in five divisions: Animal Health, Consumer Care, Diabetes Care, Diagnostics and Pharmaceuticals. The company's Animal Health and Consumer Care divisions and its diagnostic systems hold leading positions on the world market.



## Bayer CropScience

Bayer CropScience is one of the world's leading crop science companies in the fields of crop protection, non-agricultural pest control, seeds and plant biotechnology. The company offers an outstanding range of products and extensive service backup for modern agriculture and for non-agricultural applications. Bayer CropScience strives for leadership in technology and innovation and uses its research skills to develop innovative technologies which create added value for its customers and stakeholders. Bayer CropScience is committed to the principles of sustainable development and supports efforts to protect the environment and natural resources.



Help for hemophiliacs: The new Kogenate® with Bio-Set®



A research focus: The canola plant.

Bayer HealthCare	2004	2005	Change
€ million			%
Net external sales	8,058	9,429	17.0
Operating result [EBIT]	956	1,102	15.3
Gross cash flow	943	1,138	20.7
Net cash flow	1,053	1,351	28.3
Capital expenditures	301	330	9.6

Bayer CropScience	2004	2005	Change
€ million			%
Net external sales	5,946	5,896	-0.8
Operating result [EBIT]	492	690	40.2
Gross cash flow	893	964	8.0
Net cash flow	778	904	16.2
Capital expenditures	209	201	-3.8

### EBITDA<sup>1</sup>

€ million

2003	1,417
2004	1,392
2005	1,612

### EBITDA<sup>1</sup>

€ million

2003	1,091
2004	1,219
2005	1,284

<sup>1</sup> EBITDA: Operating result (EBIT) plus depreciation and amortization

## Bayer MaterialScience

Bayer MaterialScience is a renowned supplier of high-performance materials and innovative system solutions used in a wide range of products for everyday life. Products with leading positions on the world market account for a major share of sales. Principal customers are the automotive and construction industries, the electrical/electronics sector and manufacturers of sports and leisure articles, packaging and medical equipment. Operations comprise five business units: Coatings, Adhesives and Sealants; Polycarbonates; Polyurethanes; Thermoplastic Polyurethanes and Inorganic Basic Chemicals, along with two independent companies, H.C. Starck and Wolff Walsrode.



*Innovation in automotive engineering: The Makrolon® sunroof*

Bayer MaterialScience	2004	2005	Change
€ million			%
Net external sales	8,597	10,695	24.4
Operating result [EBIT]	641	1,369	113.6
Gross cash flow	884	1,402	58.6
Net cash flow	498	1,388	178.7
Capital expenditures	332	715	115.4

### EBITDA<sup>1</sup>

€ million

2003	980
2004	1,216
2005	1,914

## Bayer Business Services

Bayer Business Services is the Bayer Group's international competence center for IT-based services. The company's objective is to contribute lastingly to its customers' value creation with high-performance solutions and new ideas. Its product offering is focused on four core areas: IT and telecommunications; procurement and logistics; human resources and executive personnel services; and finance and accounting. The service spectrum ranges from consultancy through the development and implementation of system solutions to the handling of entire business processes. For industry and public-sector customers, Bayer Business Services positions itself as a business process outsourcing partner; for Bayer, as a shared service center.

## Bayer Technology Services

Bayer Technology Services, the technological backbone of the Bayer Group, is engaged in process development and in process and plant engineering, construction and optimization. This company also develops innovative technology platforms that contribute substantially to the efficiency of Bayer's operating units. Bayer Technology Services offers integrated solutions throughout the life cycle of facilities, processes and products.

## Bayer Industry Services

Bayer Industry Services is the operator of Germany's largest chemical park network, with sites in Leverkusen, Dormagen and Krefeld-Uerdingen. The company provides the foundation for the smooth operation of facilities at these sites, offering a customized service portfolio ranging from technology through environmental protection, waste management, utility supply, analytics, infrastructure, safety and security to vocational training and continuing education courses. Bayer Industry Services also markets fully developed land and buildings to companies interested in setting up operations within the chemical parks.

# Working to create value through innovation and growth

**Bayer is a global enterprise with core competencies in the fields of health care, nutrition and high-tech materials. Our products and services are designed to benefit people and improve their quality of life. At the same time we want to create value through innovation, growth and improved earning power.**

We have successfully reorganized the Bayer Group and further streamlined our portfolio to create a new Bayer that is focused on its corporate strengths, its customers and the markets of the future. To help us achieve this goal, we carried out a strategic realignment that concentrates our activities in three high-potential, agile subgroups with largely independent operations: HealthCare, Crop-Science and MaterialScience, supported by three service companies. Our operating companies give us the access we need to the growth markets of the future.

As an inventor company, we plan to continue setting trends in research-intensive areas. Innovation is the foundation for competitiveness and growth, and thus for our company's success in the future.

We believe our technical and commercial expertise entails a duty to contribute to sustainable development – a principle we wholeheartedly endorse, mindful of its social, ethical and environmental elements. In awareness of our responsibilities as a corporate citizen, we define economy, ecology and social commitment as objectives of equal rank.

We seek to retain society's confidence through performance, flexibility and open communication as we work in pursuit of our overriding corporate goals: to steadily create corporate value and generate high value-added for the benefit of our stockholders, our employees and the community in every country in which we operate.



## Science For A Better Life



4 Foreword by Bayer Management Board Chairman Werner Wenning

6 News 2004 to 2006

## 12 Strategy and Management

12 Defining, handling and living responsibility

14 Corporate governance

15 Sustainability management

17 Sustainable development policy

18 Our path to becoming a sustainable company

20 Objectives

21 Outlook

22 Interview with Dr. Wolfgang Plischke, Management Board member responsible for Innovation, Technology and Environment

## 26 Economic Responsibility

26 Sustainable business practices

27 Bayer stock

27 Prof. Rüdiger von Rosen, Managing Director of Deutsches Aktieninstitut e.V., on sustainable investment

28 Products and customers

30 Rules on competitive conduct

## 34 Ecological Responsibility

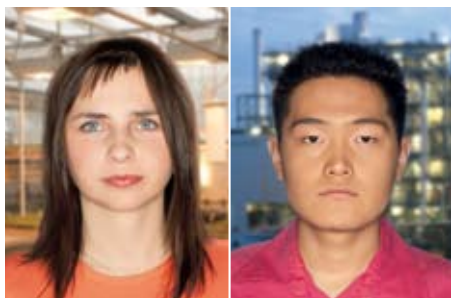
34 Future-oriented, efficient and safe

37 Future-oriented climate protection

39 Efficient resource management

39 Klaus Liedtke, Editor-in-Chief of National Geographic Germany, on the cooperation with Bayer on the supply of drinking water

41 Safe production



*Featured in this Report are the projects of some of the young people who visited Germany in 2005 as part of Bayer's Young Environmental Envoy program. This is one of many activities that we organize jointly with the United Nations Environment Programme (UNEP) in the area of youth and the environment. In November 2005 we invited 45 Young Environmental Envoys from 14 countries to Leverkusen for a mutual exchange of experience. The photos that are found between the different sections of this Report were taken during this trip. You will find more information about the Bayer Young Environmental Envoys and the partnership with UNEP on pages 9 and 48 et seq. and on the Internet at [www.UNEP.BAYER.COM](http://www.UNEP.BAYER.COM)*

<b>44</b>	<b>Employees and Society</b>
44	Assuming responsibility for others
45	Equal opportunities for all
47	Dialogue with employees
48	Social commitment as a part of Bayer's corporate culture
50	Dr. Maria Freire, President of the Global Alliance for TB Drug Development, on health care in developing countries
51	Working to protect human rights
<b>54</b>	<b>Subgroups and Service Companies</b>
54	Bayer HealthCare
57	Bayer CropScience
60	Bayer MaterialScience
63	Bayer Business Services
64	Bayer Technology Services
65	Bayer Industry Services
<b>68</b>	<b>Performance Indicators and Sustainability Program</b>
69	Ecological indicators
78	Social indicators
81	Economic indicators
83	Assurance Statement by Deloitte
84	Group Sustainability Program for 2006 onwards
88	Global Compact
89	Masthead
Back flap	GRI Index
Back flap	Financial Calendar

# “Only companies that operate sustainably will succeed”

## Dear readers,

There is no doubt that the past two years since the publication of our last Sustainable Development Report have been extremely successful for Bayer, both from an operational and from a strategic point of view. Our impressive business results are the consequence not least of the largest restructuring operation in the Group's history. As an inventor company, we are now focused on our expertise in the fields of health care, nutrition and high-tech materials. Our prime goal is to improve people's quality of life and make that life more pleasant through our innovative products and services.

For Bayer, success is not something that can be measured solely in statistics and growth rates. We want to bring commercial efficiency, ecology and social commitment into harmony with each other. To do this, we aim to acquire a leading technological and economic position in our industry, and, at the same time, set standards in environmental protection and social commitment. It is our conviction that, in the medium and long term, only companies that operate sustainably will also enjoy economic success.

For Bayer, such considerations are not new. When terms such as “corporate social responsibility,” “Responsible Care” and “sustainable development” did not yet exist, our company was already very much committed to the concepts they now stand for. Consequently, “respect for people and nature” and the “sustainability of our actions” are among our key corporate values. Quoting our Mission Statement: “We believe our technical and commercial expertise entails a duty to work for the good of all humankind, to demonstrate social commitment and to make a lasting and positive contribution to sustainable and environmentally compatible development.”

Bayer takes its role as a socially responsible corporate citizen very seriously. This can be seen, for example, in our signing of the United Nations Global Compact, through which the company has, for example, committed itself to protect human rights, foster environmental protection, encourage better working conditions and fight worldwide corruption. Fundamentally, it sets out to support responsible globalization.



Climate protection plays a major role in this respect. Our positive greenhouse gas record is particularly satisfying. Through wide-ranging investment, we have been able to significantly reduce the emission of greenhouse gases – a path we intend to continue treading in the future.

Bayer also makes a substantial international contribution to sustainability in its role as the first private-sector partner to the United Nations Environment Programme (UNEP) in the area of youth and the environment. Together with UNEP, we have launched a number of worldwide projects. We not only sponsor the activities financially to the tune of €1 million a year, we also help to implement them. One of the projects is the “Young Environmental Envoy” program founded by Bayer, through which, every year, young people from all over the world are invited on a study trip to Germany to give them an opportunity to experience modern environmental protection first-hand.

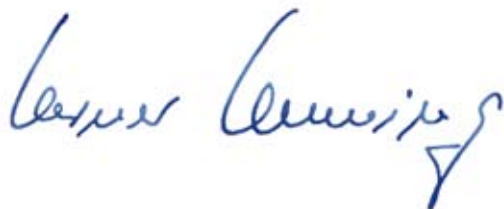
We currently sponsor around 300 projects across the globe as part of our social responsibility program. The company has also taken up the problem of child labor in Brazil, which we help to combat via the well-known Abring Foundation. In India, too, we have launched various campaigns against child labor. All our social projects are aimed at sustainably improving the future opportunities – particularly of young people.

In complying with our policy guidelines, we see the sustainability of our actions to be a fundamental principle. One example involves illegal price agreements. We have obligated our employees in all the countries in which we operate to comply in full with the laws and regulations in place in those countries. We will not tolerate violations. In 1999, we published directives on legal compliance and corporate responsibility, describing our rules clearly and unambiguously. We made these directives even stricter in 2004.

With its many products and services, Bayer serves customers everywhere. In line with our slogan “Bayer: Science For A Better Life,” we have made it our aim to benefit people around the world in matters of health care and nutrition, and quite simply, to improve their quality of life. Our slogan also stands for the wide-ranging contributions made by the company in an economic, ecological and social respect.

I hope this Report provides you with an interesting insight into our company, its goals and its activities.

Kind regards



**Werner Wenning**, Chairman of the Board of Management of Bayer AG



Water conservation is spelled with a capital *w* in Baytown, Texas (United States). The company was presented with the "Industrial Water Quality Achievement Award" for its handling of water in 2004. Our photo shows a plant for manufacturing polyurethane raw materials.



At the Extraordinary General Meeting in November 2004, the stockholders decided with a large majority to split up Bayer and Lanxess. This set the course for the strategic realignment of the Bayer Group.



Bayer and National Geographic Germany jointly promote research into drinking water protection.

## News 2004–2006

### Member of the Global Reporting Initiative

In **October 2004**, Bayer is the first German chemical company to become an organizational stakeholder of the Global Reporting Initiative (GRI), a partner organization of the United Nations. The aim of this international cooperation is to establish globally accepted guidelines on sustainability reporting. Bayer continuously refines its own reporting on sustainability in line with the GRI standards.

### Award for water protection

For its exemplary performance in water protection, the Baytown site in Texas (United States) is awarded the "Industrial Water Quality Achievement Award" in **October 2004** by the Water Environment Federation (WEF).

### Around €13 million for the flood victims in Asia

Bayer makes donations totaling €13 million **at the beginning of 2005** for the flood victims in Asia to accompany long-term reconstruction. For example, in cooperation with other German companies, several medical centers are built in India and the wages of medical staff paid for several years. In the "Indogerm-direct" initiative in Indonesia, which is under the patronage of the German Embassy and the German-Indonesian Chamber of Industry and Commerce, many German companies including Bayer have decided to finance medium and long-term reconstruction measures via a trust account.

### Successful stock market launch of Lanxess AG

With the successful listing of Lanxess AG in **January 2005**, the Bayer Group concludes the biggest restructuring project in the company's history. The spin-off of the chemicals division enables Bayer to concentrate on its core businesses of health care, nutrition and high-tech materials.

### Responsible Care Award for Bayer Turkey

In **April 2005**, the Bayer site in Gebze near Istanbul (Turkey) is presented with the national "Responsible Care Social Achievement Award" from the Turkish Chemical Association.

### Help to protect drinking water

National Geographic Germany and Bayer conclude a joint sponsorship program in **June 2005** for research on the global protection of drinking water. As part of the "National Geographic Global Exploration Fund," €250,000 is made available for scientific work.

### Good corporate management at Bayer

Bayer's company management is exemplary. This is certified in **June 2005** by the Union Investment fund company in a study focusing on the quality characteristics of good corporate governance at DAX companies in 2005. In this ranking of the 30 companies listed in the German share index (DAX), Bayer takes third place. Union Investment not only applies the requirements of the German Corporate Government Code, it also evaluates transparency and the handling of stockholders' rights based on its own quality standards.



*For the first time, Bayer supported UNEP's International Children's Painting Competition on the Environment in 2005. More than 10,000 children from 60 countries took part.*



*Following the devastation by hurricanes Katrina and Rita, many people in the United States did not even have the basics to survive. Our donations and the close cooperation with the Red Cross were an enormous help for the victims.*

#### **How children see the world of tomorrow**

Parks in the middle of cities, woods full of animals, clean rivers, flower-covered landscapes and flags from all over the world, held together by a band of unity. That more or less sums up how children see the world of tomorrow, as is graphically illustrated by paintings submitted by 10,000 children from 60 countries to the 14th International Children's Painting Competition on the Environment. The competition is organized jointly by Bayer and the United Nations Environment Programme (UNEP). In his welcoming message at the award ceremony in **June 2005** in San Francisco, Bayer CEO Werner Wenning underscores the importance of this cooperation: "We are delighted to be able for the first time to support this competition, which is one of the most important activities in our cooperation with UNEP. Bayer's global commitment to encouraging environmental awareness on the part of young people conforms to our responsibility for the environment. The vision of sustainable development plays a decisive role in shaping our business and social activities in all countries in which we operate."

#### **Inclusion in sustainability indices again**

In **September 2005**, for the seventh time in succession, the Bayer share is listed in the Dow Jones Sustainability Index World. Bayer is also represented in the DJSI STOXX, FTSE4Good and ASPI Eurozone.

#### **Aid for hurricane victims**

In **September 2005**, Bayer donates, with the generous support of the workforce, financial and material aid worth nearly US\$ 4 million for the victims of hurricanes Katrina and Rita in the United States. Our 16,000 North American employees and several business groups are involved in the fund-raising effort. A core team from Pittsburgh (United States) works closely with the Red Cross and the authorities to ensure that our aid actually reaches the areas that suffered most.

#### **Bayer is best employer**

Economic magazines and HR consulting firms rate our companies in Argentina, Australia, Belgium and New Zealand as the best employer in the particular country. In the United States, Bayer is listed as one of the leading companies in terms of the way it looks after working parents. In **November 2005**, our performance in HR development is also acknowledged by the Austrian Federal Ministry for Economics and Labor with a nomination for the State Prize "Knewledge 2005."

#### **Award for climate protection**

For its successes in the field of climate protection, Bayer is awarded the "Low Carbon Leaders Award" at the Climate Summit in Montreal (Canada) by the international climate protection organization The Climate Group in **December 2005**. This high-ranking organization represents globally operating banks, re-insurers and the governments of several U.S. states. Bayer is one of five companies worldwide, and the only German company, to receive



At the Climate Summit in Montreal, Bayer receives the "Low Carbon Leaders Award" for its success in climate protection. The picture shows the electrolysis plant in Dormagen where chlorine is generated by a new process.



The company is presented with the Ron Brown Award of the u.s. President for the employee initiative "Making Science Make Sense," in which Bayer has been promoting the national science education of schoolchildren for more than ten years.



Vice Chancellor Franz Müntefering (center) presents Bayer HR Manager Jan Peters (right) and Uwe Menzen from Bayer Industry Services the award "Shaping Employment – Companies Demonstrate Responsibility."

this "best in class" rating. Further recognition of Bayer's commitment to climate protection is its inclusion in the Climate Leadership Index, the first global stock index for climate protection, in September 2005. This considers the 60 best companies to emerge from the "Carbon Disclosure Project," an evaluation initiative by major institutional investors.

#### Fines for competition violations

Following agreements made in 2004 with the u.s. Justice Ministry, Bayer pays fines for competition violations in the fields of rubber chemicals of us\$ 66 million, adipic acid-based polyester polyols of us\$ 33 million, and acrylonitrile-butadiene rubber of us\$ 4.7 million. In **December 2005** the European Commission imposes a fine on Bayer of €58.9 million for competition violations in the field of rubber chemicals. The company does not tolerate violations of its code of conduct. Employees who knowingly violate our regulations and harm the Bayer Group through their actions can expect harsh sanctions, including dismissal.

#### u.s. award for social responsibility

In **January 2006**, Bayer receives the "Ron Brown Award for Corporate Leadership" of the u.s. President for its social commitment. It is the first company based outside the United States and the first company in the chemical industry to receive this award. The Ron Brown Award is the highest award in the United States for corporate social responsibility (CSR) programs, and is presented for the employee initiative "Making Science Make Sense," with which Bayer has been supporting natural science education for school students for more than ten years.

#### New Global Charter for Responsible Care

In **January 2006**, Bayer signs the Declaration of Support for the new "Global Charter Responsible Care."

#### Jump start for disadvantaged young people

In **January 2006**, our German "jump start" program for young people with learning difficulties is awarded the prize "Shaping Employment – Companies Demonstrate Responsibility" in the category "Prospects for Young People." Bayer is the only DAX 30 company to receive this award, which is presented by the German Federal Ministry for Labor and Social Affairs and the Initiative for Employment. Back in November 2004, a German children's charity honored Bayer for its exemplary commitment to socially disadvantaged young people.

#### Bayer and UNEP endorse partnership

Bayer and the United Nations Environment Programme (UNEP) endorse their collaboration in global youth environmental activities. Bayer Management Board Chairman Werner Wenning and the then UNEP Executive Director Professor Klaus Töpfer give a positive rating to their first two years of partnership in the area of youth and the environment at a press conference in mid-**March 2006** in Leverkusen.

In June 2004, Bayer and UNEP concluded a cooperation agreement with an initial duration of three years that globalized the two parties' previous collaboration in Asia. Since that time, Bayer has helped the United Nations Environment Programme to develop youth networks in Asia, Latin America and Africa, and to establish a global environment summit attended every two years by



*At the signing of the scientific cooperation agreement between Bayer and Tongji University, Shanghai, China: (l. to r.) the then UNEP Executive Director Prof. Klaus Töpfer, the then Bayer Board member Dr. Udo Oels, the President of Tongji University Prof. Gang Wan and Bayer CEO Werner Wenning.*



*In the Medical and Social Centre in Thenampattinam, India, physicians can care for up to 200 people a day. It was built in cooperation with other German companies and is part of our long-term aid program for the victims of the tsunami in Asia.*

about 200 delegates from national youth environmental organizations.

Apart from that, Bayer and Tongji University, based in Shanghai, China, sign a memorandum of understanding concerning the establishment of a Chair for Sustainable Development. In addition, the two cooperation partners inaugurate an “Endowed Chair for Intellectual Property Rights” at the beginning of April 2006 in Shanghai.

#### **Possible risk with Trasylol®**

In **January 2006**, reports from two different studies show a possible connection between Trasylol® (active ingredient: aprotinin) and severely impaired kidney function or vascular narrowing (heart attack and stroke). Studies performed over many years and Bayer’s own experience with Trasylol®, however, have shown it to be a safe and effective drug when used as directed. The present studies are currently being evaluated by the U.S. and European regulatory agencies (FDA and EMEA).

#### **Schering acquisition**

In **April 2006**, Bayer submits a public offer to acquire Schering AG. The Berlin company and the present pharmaceuticals business of Bayer are to be merged into an independent division of the Bayer HealthCare subgroup with the name “Bayer-Schering-Pharma.” In June 2006 the way is cleared for the Bayer Group to acquire Schering AG when Bayer gains control of a total of 88.0 percent of Schering’s some 191 million outstanding shares. The attainment of a three-quarters majority is the last remaining condition of the takeover offer. Both the European Commission and the U.S. antitrust authorities have already given their unconditional approval.

#### **Long-term aid for tsunami victims**

More than a year after the devastating tsunami in south-east Asia, Bayer is still helping the victims. In **May 2006**, a medical and social center is dedicated in the south Indian village of Thenampattinam. It enables physicians to treat up to 200 people a day. Three other centers of this kind are to be opened in southern India in cooperation with other German companies. They will offer not only care for traumatized victims but also programs to promote the economic independence of women and children.



# Domestic garbage of value

## Erwina Tobing Indonesia

*Erwina Tobing, a student of Padjadjaran University in Bandung (Indonesia), is concerned with recycling her city's organic waste. "Domestic garbage is a valuable resource that we should reutilize. If organic waste is turned into compost with the help of worms, it can act as a natural fertilizer for plants." With the concept she has developed, Erwina wants to use natural mechanisms to facilitate recycling and thereby reduce waste volumes.*

*Photo: Erwina Tobing in front of the waste incinerator in Leverkusen-Bürrig*

## Strategy and Management

# Defining, handling and living responsibility

**Bayer's products and services are designed to benefit people and improve their quality of life. The company wholeheartedly endorses the principles of profitable and at the same time socially and ecologically sustainable development and strives to act as a good corporate citizen worldwide. We have developed a new Mission Statement, and adjusted and newly formulated our code of conduct and numerous directives accordingly, thus further optimizing our management system.**

Bayer's technical and commercial expertise has always entailed a duty to work to the benefit of humankind and society at large and to make a sustainable contribution to environmentally friendly development. We define commercial success and active responsibility for the environment, our employees and society as corporate objectives of equal rank.

the coming years. The values and leadership principles formulated in the Mission Statement serve as a basis for the day-to-day activities of our employees. These values include a will to succeed; a passion for our stakeholders; integrity, openness and honesty; respect for people and nature; and sustainability of our actions.

## **The new Mission Statement: Orientation for employees worldwide**

The reorganization of Bayer prompted us to newly formulate our Mission Statement and our values over the past two years. Following a period of major change in our company, we wanted to provide clear orientation to our workforce. The Mission Statement "Bayer: Science For A Better Life," which we formulated in 2004, sets the course for the future throughout our enterprise all over the world. Employee surveys have shown that we have been successful in this endeavor.

As a guideline for our corporate strategy, the Mission Statement shows our stockholders, customers and the public what they can expect from Bayer in

## **Our Values**

**A will to succeed**

**A passion for our stakeholders**

**Integrity, openness and honesty**

**Respect for people and nature**

**Sustainability of our actions**



In 2004 we presented the Mission Statement to our workforce through a worldwide campaign. Across the globe, supervisors explained the Mission Statement to the employees in their charge in one-on-one conversations and discussed with them Bayer's strategy and values. After all, it is up to everyone who works at Bayer to act responsibly – although our managerial employees naturally play an important part in this process by serving as an example. In order to support our managerial staff in this endeavor, we also published a Policy in 2004 entitled "Values and Leadership Principles – Living our Values" that describes the expectations of the Group Management Board and establishes a framework for talent management within our company. The process includes the "Leadership Performance" and "360° Feedback" initiatives, as well as programs for selecting and promoting future managers.

The Board of Management personally informs new senior executives about Bayer's sustainability strategy and other issues during a yearly seminar. We have also distributed to our 330 top executives the "Guidelines for Managerial Employees" published in February 2006 by the German managers' association DMV. This practice-oriented manual shows managers how to take ethical values into consideration in difficult situations and thus supports our internal information and training measures for value management.

#### **Program for Legal Compliance:**

##### **Code of conduct updated**

Our code of conduct, the "Program for Legal Compliance and Corporate Responsibility at Bayer" (Corporate Compliance Program) was also revised and distributed to all employees worldwide in

2004. This program contains binding, Group-wide rules for our conduct in the market and toward competitors and each other.

All Bayer employees are required to report without delay any violations of the Compliance Program. If necessary, they can use a telephone hotline to anonymously contact a law firm appointed by us as an ombudsman. Compliance Committees have been established at Bayer AG and each of its subgroups and service companies. Each committee includes at least one legal counsel. A corresponding organization has also been put in place at foreign affiliates through the appointment of Compliance Officers or the establishment of Compliance Committees. The role of these committees and officers is to initiate and monitor systematic training and other measures necessary to ensure implementation of the Corporate Compliance Program. They are also responsible for investigating any suspected violations of the Corporate Compliance Program and, if necessary, taking steps to rectify them. All Compliance Committees and Compliance Officers report at least once a year to a Coordination Committee chaired by the Chief Financial Officer on any violations notified to them, any investigations carried out and their outcomes, and any corrective or disciplinary action taken. They also report on the systematic training and implementation measures they have initiated to foster compliance.

#### **www**

- 1 Mission Statement: "Bayer: Science For A Better Life" (PDF file)
- 2 Program for Legal Compliance and Corporate Responsibility at Bayer (PDF file)

## Corporate governance: In line with all recommendations

As clear and transparent decision-making structures are a key requirement for responsible corporate management, Bayer fully complies with all recommendations of the German Corporate Governance Code, including those in the expanded version of the code dated June 2005. We publish a statement of compliance in our Annual Report and on our website.

Bayer AG is headquartered in Germany and is thus subject to the regulations of German corporate law, despite also being listed on the New York Stock Exchange (NYSE). A basic principle of German corporate law is the two-tier governance system, comprising a Board of Management that serves as a leadership body and a Supervisory Board that oversees the activities of the Board of Management.

### **Corporate committees: Anchoring transparency and codetermination**

Strategic management and business operations are kept separate in the Bayer Group. Bayer AG defines the common values, objectives and strategies of the company as a whole. The subgroups and service companies operate independently under the leadership of the management holding company, which is headed up by four Management Board members charged with the strategic management of the entire Group. The Corporate Center supports the activities of the Group Management Board and also performs cross-subgroup functions.

The Supervisory Board is comprised of 20 members. Under the German Codetermination Act, half the members of the Supervisory Board are elected by the stockholders, and half by the employees. The committees set up by the Supervisory Board – the Presidial Committee, the Audit Committee and the Human Resources Committee – operate in compliance with the German Stock Corporation Act and the German Corporate Governance Code, and the Audit Committee aligns itself additionally

to the U.S. Sarbanes-Oxley Act (SOA) and the rules of the New York Stock Exchange (NYSE).

### **Sarbanes-Oxley Act: Requirements of the U.S. financial market satisfied**

As Bayer is also listed on the New York Stock Exchange, we have brought our corporate governance into line with relevant U.S. regulations. Bayer AG has thus set up a Disclosure Committee that examines and approves the publication of financial information. We have also adjusted the tasks of the Audit Committee of the Supervisory Board to the specifications of the SOA and revised the rules governing relations between the company and the auditor of our financial statements. In some cases, however, further adjustments are necessary: For example, Bayer is currently expanding its internal control system for financial reporting according to the recommendations of the U.S. Securities and Exchange Commission.

Since 2002 we have individually published on our website the remuneration of the members of the Board of Management and the Supervisory Board, as well as their stock transactions requiring disclosure. In line with the principle of fair disclosure, we report significant changes on the Internet without delay and make such information available to all our stockholders and all other target groups. We also publish on the Internet counter motions filed at the Annual Stockholders' Meeting.

In accordance with the German Control and Transparency in Business Act (KonTraG) of 1998, Bayer maintains an effective system to ensure early identification and communication of potential risks and rapid response to them. The basic principles of this system are established in the Group-wide Risk Management Policy.

[www](#)

**3** Statement of compliance with the German Corporate Governance Code (PDF file)

## Sustainability management: Lived in all areas of the company

Sustainable development is a core activity at Bayer; it is lived in all parts of the company. Group-wide control of this task is handled by the Bayer Corporate Sustainability Board, the most important committee for sustainability management at Group level. The Corporate Sustainability Board is made up of the members of the management boards of the subgroups responsible for research and technology and the heads of the Corporate Center departments Corporate Human Resources & Organization, Communications and Governmental & Product Affairs. Chaired by the Group Management Board member responsible for Innovation, Technology and Environment, this body meets quarterly to jointly establish the sustainability strategy and objectives, adopt Group directives and decide on key initiatives.

On the basis of the values and leadership principles, we have developed a Group-wide Sustainable Development Policy (see page 17). This policy is enacted through corporate directives and positions, our obligations and our sustainable development performance management system. It applies in all countries and regions of the world in which Bayer is present.

### Responsible Care: Bayer is one of the first companies to sign the new Charter

In 1994 Bayer made a commitment to uphold the Responsible Care principles of the chemical industry. These principles define responsible conduct toward people and the environment in all our activities, including our products along their entire life cycle. We endorsed these principles as early as 1986 in our "Policy guidelines for environmental protection and safety." We were one of the first companies in the world to renew this obligation to the Responsible Care initiative, with the signing by our Management Board Chairman of the "Responsible Care Global Charter" of the International Council of Chemical Associations (ICCA) in January 2006.

New features of these principles include in particular the consistent application of product stewardship across the entire value-added chain, and a management system approach to all aspects of safety, health protection and environmental protection. Another component of the Global Charter is more intensive dialogue with the public. The charter has also given us the opportunity to firmly



*The graphic shows how the issue of sustainability is implemented within the Bayer Group: The Corporate Sustainability Board controls sustainability management and represents the Group's interests in this area both externally and internally. It is supported in terms of planning and implementation by the Sustainable Development Planning Group.*

embed in our policy the implementation of Responsible Care principles in our subgroups and service companies.

**Management systems: Integrating health, safety, environmental protection and quality**

All subgroups and service companies maintain effective management systems for health, safety, environmental protection and quality (HSEQ). Also in place are systems and rules for specific requirements of individual subgroups and service companies, such as Good Manufacturing Practice (GMP) for drug products at Bayer HealthCare.

As a result of our realignment into a management holding structure, we have supplemented these systems with a Group-wide procedure specified in our "Directive on Health, Safety, Environment and Quality (HSEQ) Audits," which took effect in October 2005.

An important role with regard to HSEQ is played by our Group-wide health protection activities. At the

sites in Leverkusen, Krefeld-Uerdingen and Dormagen, for example, the Health Protection and Occupational Safety (GHA) Department within the Safety/Environmental Protection/Analytics Business Unit of Bayer Industry Services (BIS) performs a number of services in this connection. The goal of our comprehensive health management system is to identify at an early stage and prevent potential health risks. Outpatient clinics run by BIS are open around the clock so that employees can quickly receive initial medical treatment in cases of emergency.

**Supplier management:  
New policy reduces procurement risks**

Approximately 40,000 different companies supply us with roughly 500,000 raw materials, products and services from nearly 80 countries around the world. Most of the raw materials are aromatic compounds, olefinic products, organic intermediates, inorganic chemicals or active substances. We receive about 95 percent of our procurement volume from member states of the Organization for

*Sustainability management is integrated into all levels of the Bayer Group.*

Group level: general	Bayer Values		
	Leadership Principles		
	Policies		
Group level: sustainability	Sustainability Policy		
	<b>Commitments to:</b> – Responsible Care – Global Compact – World Business Council for Sustainable Development – corporate social responsibility	<b>Positions and policies on relevant basic issues</b>	<b>Sustainability management</b> – goals – reporting – steering
	<b>Policies, goals and strategies</b> <b>HSEQ management systems and audits</b> <b>Responsible Care programs and initiatives</b> <b>Opportunity and risk management</b>		
Subgroup and service company level (including regions and countries)			

Economic Cooperation and Development (OECD), which adhere to minimum ecological and social standards. Yet we have also taken precautions for deliveries from non-OECD countries: Our Group-wide procurement organization – the Bayer Procurement Community – supports our commitment to observe “internationally recognized ethical principles in the areas of human rights, labor conditions (includes the fight against child labor), environmental protection and anti-corruption,” as defined in the “Procurement Community Policy” revised in 2005.

In the “Supplier Relationship Management System” (SUPREME) introduced in the spring of 2003, our Group-wide procurement organization has at its disposal an instrument that enables us to evaluate our suppliers not just as regards quality and pricing, but also according to ethical aspects: In the pre-selection of suppliers, we check whether they comply with the United Nations’ Universal Declaration of Human Rights and the core labor standards of the International Labor Organization (ILO). Further aspects are also taken into account depending on the area and subgroup. For example, we require construction companies to provide certificates of international safety, health and environmental protection standards (e.g. SCC = Safety Certificate Contractors). If these companies do not satisfy our requirements, they are generally excluded from the selection process.

In newly industrializing countries, however, we are increasingly relying on a cooperative approach: By working together with the Abrinq Foundation in Brazil, for example, we were able to abolish child labor among one of our suppliers. We are taking a similar approach in India (see page 51).

## Bayer Group Sustainable Development Policy

*We at Bayer carefully develop products and services specifically designed to benefit people. In this endeavor, we are committed to achieving the economic, ecological and social responsibility objectives of Sustainable Development. Sustainable Development is a globally accepted approach to sustaining economic growth without harming our planet or exhausting its resources while improving the quality of life for its current and future inhabitants.*

*We believe that practicing Sustainable Development makes good business sense. In all our operations we consider each of these actions in making business decisions that demonstrate our commitment to the global Sustainable Development effort:*

*Our business is the means by which we combine human ingenuity and natural resources to benefit mankind. Hence, economic responsibility dictates that we manage our business profitably to help drive economic growth and prosperity. We believe that innovation is essential to achieving sustainable economic success. We also invest extensively in research, development and new technologies as a foundation for future success.*

*Bayer is committed to continually improving our ecological performance in accordance with the Global Charter Responsible Care as our product lines and related manufacturing operations evolve. We will continue to monitor how our operations impact the environment and strive for continuous improvements. The health and safety of our employees, neighbors, customers, consumers and stakeholders are paramount, as is our continued stewardship of the environment and the quality and safe handling and use of our products.*

*We will continue to address our social responsibilities through our commitment to help our employees, customers and community neighbors meet their changing personal and professional needs. We also will monitor and address the impact our business has on our plant neighbors, local communities and global society. To this end, we will continue to seek an active, open and honest dialogue with all stakeholders in appropriate forums. The Bayer Values and Leadership Principles are based on preserving and honoring the fundamental rights of every individual. Bayer will continue to seek to promote and protect human rights as defined in internationally accepted humanitarian standards set forth by the United Nations<sup>1</sup>.*

*This Sustainable Development approach to conducting our business aligns with Bayer’s Mission Statement: “Bayer: Science For A Better Life.”<sup>2</sup> To assure that we continue to demonstrate continual improvement in the Economic, Ecological and Social Responsibility pillars of Sustainable Development, we have introduced customized management systems to monitor and control progress, document the achievement of objectives, and optimize employee efforts in these areas. And we remain committed to truthfully report on our sustainability performance to all interested parties.*

<sup>1</sup> See “Universal Declaration of Human Rights of the United Nations,” December 1948

<sup>2</sup> See Corporate leaflet “Bayer: Science For A Better Life,” July 2004

**Stakeholder dialogue:  
Group-wide policy being developed**

We traditionally maintain a particularly intensive dialogue with the communities in which our production sites are located. Residents receive insight into our operations and are able to discuss issues with Bayer experts during guided tours of our facilities for visitor groups, at events for schoolchildren or on our annual “open house” day. At “BayKomm” – the Bayer Communication Center, which opened in 1991 at our headquarters in Leverkusen – we hold events that address a broad section of our stakeholders. Each year about 140,000 guests from Germany and around the

world respond to our invitation to enter into dialogue with the company.

In addition to traditional groups such as customers, employees, community members and authorities, further external stakeholders are important to us at a national and international level. These include investors, governmental representatives, non-governmental organizations (NGOs) and consumer groups. We aim to expand and further systematize dialogue with these stakeholders in the coming years. After all, on the one hand their opinion of our activities has an increasingly important impact on our business success. And on the other

## Our path to becoming a sustainable company

	Before 1993	1993 – 1994	1995 – 1997	1998 – 1999
<b>Strategic steps</b>	<p><b>1983:</b> “Principles of the new pension policy” for company pension plans (existing at Bayer since 1897)</p> <p><b>1986:</b> “Policy guidelines for environmental protection and safety”</p>	<p><b>1994:</b> “Guidelines for Responsible Care in Environmental Protection and Safety” (Responsible Care Initiative)</p>	<p><b>1997:</b> Agreement to Safeguard the Future of German Sites and Employment at Bayer AG (Solidarity Pact I)</p>	<p><b>1999:</b> CEO’s commitment to the 10 Responsible Care principles of the German Chemical Industry Association VCI</p> <p><b>1999:</b> “Guidelines for Legal Compliance and Corporate Responsibility at Bayer”</p>
<b>Projects and measures</b>	<p><b>1987:</b> Launch of a DM 3 billion program to improve environmental protection</p> <p><b>1987:</b> Launch of a continuing education program on environmental protection and occupational safety</p> <p><b>1991:</b> Publication of basic data sets compiled since 1987 for the evaluation of existing chemicals in circulation before 1981 whose annual production volumes exceeded 1,000 metric tons</p>	<p><b>1994:</b> Interim report on the continuing education program “Environmental Protection and Occupational Safety,” launched in 1987: More than 40,000 employees have already received over 0.5 million hours of seminar training</p>	<p><b>1995:</b> First environmental declaration by a large German chemical facility at Bayer’s Dormagen site, in accordance with the E.U. Eco-Audit Regulation</p> <p><b>1996:</b> Agrovida program is introduced to improve the living and working conditions of rural laborers in Brazil. Specially developed concepts teach the economical, safe and environmentally friendly handling of crop protection products. About 25,000 families take part.</p>	<p><b>1998:</b> Responsible Care is made a focus throughout the Bayer Group’s workforce for 1998</p>
<b>Communication</b>	<p><b>1976:</b> “Bayer in Economy and Society” report</p> <p><b>1987:</b> First international press forum to present Bayer’s perspective on the environment</p> <p><b>1991:</b> Opening of the “BayKomm” communication center in Leverkusen</p>	<p><b>1993:</b> First Environmental Report</p>	<p><b>1995:</b> Second Environmental Report, all sites included for the first time</p> <p><b>1997:</b> Third Environmental Report</p>	<p><b>1999:</b> Responsible Care Report</p> <p><b>1999:</b> Bayer stock included for the first time in the Dow Jones Sustainability Index (DJSI) and Storebrand Principle Funds</p>

hand, we hope the dialogue with them will provide us with insight into how we can increase our contribution to sustainable development and thus reduce risks. By the beginning of 2007, therefore, we aim to develop a Group-wide policy for stakeholder dialogue.

In October 2004 we became the first German chemical company to join the Global Reporting Initiative (GRI) as an organizational stakeholder. This underscored our willingness to contribute our own experience in sustainability reporting to the international discussion surrounding the further

development of the GRI guidelines and in turn learn from other companies. The first conference of GRI stakeholders in Germany took place in December 2005 at Bayer's headquarters in Leverkusen. Discussed at this conference were the new GRI guidelines for sustainability reporting, in the development of which Bayer participated intensively as one of just a few German companies.

**WWW**

- 4 Responsible Care (PDF file)
- 5 Responsible Care Charter
- 6 Further information on Bayer's sustainable development policy
- 7 Abrinq Foundation, Brazil
- 8 Bayer Communication Center "BayKomm" in Leverkusen
- 9 Global Reporting Initiative

2000	2001	2002
Bayer becomes one of 45 founding members of the "Global Compact," an initiative of U.N. Secretary General Kofi Annan	"Guidelines for Responsible Care in Environmental Protection, Health Protection and Safety"	Agreement with "Medicines for Malaria Venture" concerning the development of a new malaria drug to help developing countries
All production sites – more than 200 in total – registered in the Bayer Site Information System (BAYSIS®) introduced in 1999 to determine the HSE key performance indicators	Bayer stock included for the first time in the FTSE4 Good Global 100 and the ASPI Eurozone Index	Introduction of a Waste Management Information System (AMIS)
Media forum on environmental protection and safety: "Bayer's Perspective on Ecology 2000"	First Sustainable Development Report	Bayer Management Board member Dr. Oels visits the World Summit for Sustainable Development in Johannesburg, South Africa, to appeal for safer handling of chemicals.

## Objectives: Much has already been achieved

We have made significant progress in recent years on our path to becoming a sustainable company. Today our business focuses on three innovative and fast-growing sectors, each of which can make an important contribution to sustainable development worldwide. In our Sustainable Development Report 2004, we presented in detail the sustainability objectives for the Bayer HealthCare, Bayer Crop-Science and Bayer MaterialScience subgroups. On our Internet site, you can find out what we have already achieved. You will find our new objectives on pages 84 et seq.

Two years ago we established main points of focus in various areas. Our goals were:

- to systematize sustainability management,
- to improve our performance in the areas of environmental protection, occupational safety and health protection,
- to develop sustainable products,
- to help improve working conditions worldwide,
- to promote environmental awareness, education and research.

We consistently addressed these aspects over the past two years and achieved our objectives in many cases, for example through the formulation of our Mission Statement, the expansion of our HSEQ management systems, our commitment to selected initiatives such as the Global Compact and the Young Environmental Envoy Program we implement in the context of our partnership with UNEP. We were also active in a number of areas in which we had not defined explicit goals: We have made at least some progress in our stakeholder dialogue and in the improvement of working conditions through strict supplier management. However, there remains much to be done these areas (see Group Sustainability Program on page 84 et seq.).

[www](#)

10 Objectives published in our Sustainable Development Report 2004

### Our path to becoming a sustainable company

	2003	2004	
<b>Strategic steps</b>	Development of a strategy for sustainable agriculture	Cooperation agreement with UNEP to strengthen the environmental awareness of young people Formulation of a Mission Statement, Values and Leadership Principles for the Bayer Group	
<b>Projects and measures</b>	Definition of key performance indicators for Health, Safety and Environment (HSE) to steer our HSE performance.	Sustainability Committees anchored in the Bayer Group organization, first meeting of the Corporate Sustainability Board Organizational stakeholder in the Global Reporting Initiative	
<b>Communication</b>	Participation by Bayer in the 8th Asia Pacific Responsible Care Conference (APRCC) in Seoul. 500 delegates from Asia exchange experience in the area of Responsible Care	Second Sustainable Development Report	



## Outlook: More consistent exploitation of sustainability potential

In addition to the continuation of our activities in the areas of supplier management and stakeholder dialogue, we aim to more intensively concentrate on the global exploitation of sustainability potential in our subgroups in the next two years. Many of our products in the HealthCare, CropScience and MaterialScience subgroups already make a valuable contribution to sustainable development. Our goal for the next two years is to systematically support and further develop products that have strong potential through research collaborations and partnerships. We hope this will enable us to achieve good ratings from analysts and investors for whom the future orientation of companies has become a key factor. After all, another goal of Bayer is to continue to be represented in sustainability indices and funds.

Central milestones and targets on our road to becoming a sustainable company are presented in the table below. It describes the direction in which we are headed through the year 2010.

2005	2006	by 2010
Directive on Health, Safety, Environment and Quality (HSEQ) Audits	Sustainable Development Policy	See Sustainability Program, p. 84 et seq.
A global tuberculosis (TB) study program for Bayer's active substance moxifloxacin is launched, together with the product development partnership the TB Alliance.	Launch of the Group-wide innovation initiative "Triple-i"	
Inclusion in the Climate Leadership Index of the Carbon Disclosure Project Bayer presented with the "Low Carbon Leaders Award" by the climate protection organization "The Climate Group" at the Climate Summit in Montreal.	Third Sustainable Development Report	

## Interview with Dr. Wolfgang Plischke

# “We can only survive in the future through innovation”

**Dr. Plischke, on May 1, 2006, you became the Bayer Management Board member responsible for Innovation, Technology and Environment. Where do you plan to particularly make your mark?**

It is of special importance to me to make clear how closely these themes are connected to one another. All three areas are crucial to the entire enterprise's ability to survive in the future. One of our most important tasks is to convert research results into innovations such as environmentally friendly production technologies and high-quality products. Innovation is essential to safeguard Bayer's competitiveness and forms the basis of our future success. In this connection, we also must not forget our responsible conduct as a good corporate citizen.

**Does this mean you view responsible conduct as a contribution to value-added?**

Absolutely. A company's value-added is not limited to economic and financial success. It goes without saying that we create value primarily through our products and services, which safeguard society's prosperity. Yet a company also creates lasting benefits through its activities and achievements in the social sphere.

**Does this position correspond with the stockholders' expectations?**

Yes, because today it is indisputable that a significant proportion of a company's value is connected with its image and acceptance in society. And this image in turn is heavily influenced by the company's responsible conduct and its efforts on behalf of society and the environment. When we farsightedly adhere to ecological and social principles, we do not just perform a service to society – we also ensure that in the long run our company will enjoy a good reputation. This makes Bayer very attractive for financial markets that are oriented around ethical and ecological criteria, which are becoming increasingly important in the international arena. This shows that economy and ecology are

consistent with one another – and can even be mutually beneficial.

**How can you tell?**

A company's corporate social responsibility performance and its efforts on behalf of sustainable development today are evaluated by professional rating agencies. As a result of our commitment, Bayer is represented in the most important relevant indices, such as the Dow Jones Sustainability Indices or the Climate Leadership Index – the first global climate protection index. I believe this is partly an indication that sustainable action pays off economically too.

**Yet before an activity begins to pay off, it must first be certain that sustainable development is lastingly and intensively pursued in all areas of the company. How can you ensure this?**

A key role here is played by our sustainability management, which is based on a systematic approach. Building on our Values and Leadership Principles, we have developed a Sustainable Development Policy that is valid throughout the Bayer Group. It is substantiated through Bayer Group directives and positions and through our sustainable development performance management. We embody this in all countries and regions in which we are present. After all, we want our production processes and products to be environmentally compatible and safe – along their entire life cycles.

**Which products in particular already specifically promote sustainable development?**

First of all, in this connection we should remember that our three subgroups Bayer HealthCare, Bayer CropScience and Bayer MaterialScience pursue one goal above all: We want to lastingly satisfy the basic needs of humankind and help to improve quality of life. This means that we develop innovative medicines to treat cardiovascular disease and cancer, for example. At the same time, however, we also help to fight epidemic diseases such as African sleeping sickness and Chagas' disease, which are particu-

larly widespread in poorer countries. We regard this, too, as a measure of our social responsibility. We are also presented with tremendous opportunities – for example with regard to overcoming the problem of world hunger – as a result of biotechnology, which will definitely be one of the central technologies of this century. The whole field of nutrition is of course important to us in connection with sustainability. Through high-yielding seed, environmentally compatible seed dressings and innovative crop protection products, we want to achieve an urgently needed increase in agricultural yields.

But of course our MaterialScience subgroup also bears a commitment to sustainability. This is evident for example in innovative materials for lightweight construction and thermal insulation, both of which make an important contribution to climate protection. We also should not forget the entire field of production: Here we are constantly optimizing our existing processes and developing new technologies to enhance energy efficiency and conserve resources.

**The social responsibility you have talked about of course has a lot to do with corporate strategy – yet the convincing realization of this strategy is closely linked with innovative capability and dedicated employees. This prompts the question: How are you promoting the necessary innovative capability on the part of Bayer’s employees?**

This is indeed a central theme for us. After all, Bayer owes its reputation as an inventor company in large part to the creativity of its employees. It is they who for decades have succeeded in furnishing research results that have secured Bayer a leading position among the world’s most innovative companies. And this should remain so in the future. The new Group-wide innovation initiative “Triple-i” – which stands for inspiration, ideas, innovation – should also be viewed against this background. The primary goal here is to exploit the creativity of our employees for the development of

new business ideas. At the same time, however, we want to create a new culture of innovation within the company and win over everyone to this cause.

**Does innovation play a special role in your efforts on behalf of society?**

Yes, very much so. The positive development of education, science and research is very important to us, as it is the foundation for the steady further development of a society. That’s why we have initiated a broad range of scientific programs to promote education and research. These include, for instance, our educational initiative “Making Science Make Sense,” which aims to instil in schoolchildren a fascination for science. This program was first launched in the United States, and it has now been expanded to Japan. More than 1,200 Bayer employees in these two countries thus volunteer their time to engage in a constant dialogue with schoolchildren and teachers. We have initiated similar projects around the world. And through eight different Bayer-sponsored foundations, we also provide targeted support in vocational training to young people around the world, as well as assistance for outstanding scientists, for example. In this way, our corporate social responsibility is aimed at complying with our philosophy: “Bayer: Science For A Better Life.”

**Speaking of dialogue: How important to Bayer is communication with your various stakeholders? How do you address these target groups?**

Very openly, because dialogue with them is indeed extremely important to us. This is evident in part through our Sustainable Development Report, in which we transparently explain our values, our management and our actions.



*Dr. Wolfgang Plischke was appointed to the Bayer Management Board on March 1, 2006. Since May 1, 2006 he has been responsible for Innovation, Technology and Environment, as well as for the Asia region.*



# A better future for the stingless bee

## Cristiano Menezes **Brazil**

*The "Triangulo Mineiro" region of Brazil is one of the areas hardest hit by exhaustive cultivation. In order to provide cattle herds with sufficient grazing land, enormous forest areas are cleared. This in turn is shrinking the habitat for the stingless bee that lives in these forests. Cristiano Menezes works on behalf of this valuable insect, on the existence of which various indigenous plants also depend. He has collected hundreds of signatures in support of saving the forest areas of the Triangulo Mineiro and has since turned this list over to the Brazilian government. Cristiano is optimistic: "Maybe the stingless bee will soon once again have a future in the rain forests of Brazil."*

***Photo: Cristiano Menezes from Brazil in front of the Institute for Plant Diseases in Monheim***

## Economic Responsibility

# Sustainable business practices

**Today, Bayer is one of the world's largest chemical and health care groups. That is reflected by our stock, which was one of the top-performers on Germany's DAX index in 2005. And Bayer stock should remain a good investment in the future, both on economic grounds and from a social and ecological viewpoint.**

To safeguard the future success of our business, it is vital to link innovation, value and sustainability. Bayer's long-term strategy therefore concentrates on maximizing the utilization of resources. That reduces environmental impact and cuts costs. It also creates value – for our stockholders and for society.

#### **Innovation: Enabling lasting corporate success**

Bayer is a research-based company, and spent more than €3.8 billion on research and development in 2004/2005. Bayer's own innovation projects are backed up by access to an international network of universities, public-sector research centers and other institutes. Moreover, our subsidiary Bayer Innovation GmbH is dedicated to exploring new business ideas based on innovative technologies.

In spring 2006 we launched the "Triple-i" initiative. "Triple-i" stands for inspiration, ideas and innovation. All Bayer employees are invited to consider whether there are key requirements relating to their work, at home or elsewhere for which satisfactory solutions do not yet exist. The Bayer Group has earmarked €50 million for the development and commercialization of these innovative business ideas, in addition to its research and development budget.

#### **Risk and reputation management established**

Compliance with external standards plays a central role in risk and reputation management at Bayer. Alongside in-house quality and safety directives, Bayer therefore applies external directives, codes of conduct and self-control mechanisms in all areas of business (see page 54 et seq.).

#### **Stock ownership structure: A broad base**

Our last stock ownership survey in 2001 was based on responses representing 95.6 percent of the company's capital stock. Individuals hold 24 percent of the capital stock recorded by the survey and 67 percent is held by institutional investors – comprising 55 percent banks and insurance companies and 12 percent investment funds. The remaining nine percent is divided between trade and industry (three) and others (six). A share of 5.04 percent of capital stock was recorded for The Capital Group Companies Inc., United States (on April 19, 2006), and of 5.03 percent for the Capital Research and Management Company, United States (on May 10, 2006).

#### **www**

**11** Bayer Innovation GmbH takes up new business ideas based on innovative technologies.

## Bayer stock: A sustainable investment

Institutional and private investors have included sustainability criteria in their investment policies for many years. Bayer is well-positioned to benefit from such considerations through its commitment to society and the environment. Our stock is included in all major share indices that highlight especially sustainable enterprises.

We are also pioneering new approaches to financial management. In summer 2005 Bayer became the first non-governmental organization to issue a high-volume hybrid bond. The main feature of such instruments – which are a cross between a stock and a genuine bond – is their long maturity. For example, Bayer's hybrid bond matures in 100 years. It was oversubscribed within a short period, indicating investors' confidence in our long-term business performance. The issue raised €1.3 billion, €300 million more than originally planned.

### Sustainability indices:

#### Inclusion in the Climate Leadership Index

We are particularly proud to have been given a place in the Climate Leadership Index in fall 2005. This index contains the top 12 percent of the world's 500 largest listed corporations, measured by their climate protection performance (see page 8).

We have been included in the Dow Jones Sustainability Index World (DJSI World) continuously since it was established in 1999. Since 2001 we have also been listed in its European counterpart, the Dow Jones Sustainability Index STOXX (DJSI STOXX). Inclusion in this index is based on an assessment by the Zurich-based rating agency SAM Research. In the 2005 rating process Bayer's company score was 75 percent of the maximum, placing it above the average for the chemical industry, which was 60 percent. Furthermore, we have been included in the benchmark sustainability indices in the FTSE4Good series since it was launched by the Financial Times and the London Stock Exchange in 2001. In 2005 analysts at the Storebrand Principle Global Funds again included Bayer in

the top ten percent of chemical companies on the basis of its sustainability performance.

### WWW

12 Further information on selected sustainability indices in which Bayer is included.



### Significance of corporate sustainability activities

Prof. Rüdiger von Rosen, Managing Director of Deutsches Aktieninstitut e.V.

*Information on corporate sustainability activities is becoming more important in equity analysis and attracting more attention from analysts. Besides, including non-financial risks greatly improves the quality of both corporate risk management and equity analysis. It therefore has a positive impact on the relationship between companies and their owners, the stockholders.*

*Various analyses have examined whether such qualitative improvements have a direct financial impact. Focusing on sustainability criteria does not automatically improve a company's financial performance. However, it does generate an impressive improvement in its reputation, without adversely affecting its financial performance. That is a decisive factor from the investor's viewpoint.*

*By addressing the wide-ranging, long-term aspects of sustainability and incorporating them into their strategy, companies like Bayer strengthen corporate risk management. Competent corporate governance is a key factor in investors' decisions. Increased transparency also reinforces the relationship between the company and its investors. Companies that take a constructive approach to such challenges therefore deserve to be congratulated.*

## Products and customers

The Bayer Group's focus on innovation and growth has generated products with strong sales in recent years. Our portfolio offers prospects for good economic growth in the future as well.

### **Profitable products:**

#### **New developments in the research pipeline**

We launched our new cancer drug Nexavar® in the United States at the end of 2005 for the therapy of advanced renal cell carcinoma. It has since received regulatory approval in Mexico and Switzerland too. The Committee for Human Medicinal Products at the European regulatory agency EMEA has recommended Nexavar® for approval in the E.U. We expect this approval to be granted in the second half of 2006. Further Phase III studies are currently under way in patients with advanced liver cancer, metastasized melanoma and non-small cell bronchial carcinoma. We have received orphan drug status from both the European and the U.S. regulatory agencies for the indication liver cancer; this status confers, among other things, exclusive marketing rights. If Nexavar® is approved in this indications, it could have a sales potential in excess of €1 billion.

We expect our oral thrombosis drug, a Factor Xa inhibitor, to have a similar sales potential. The product is currently in Phase III clinical trials for the prevention of venous thrombosis and in Phase II studies for the treatment of venous thrombosis and the prevention of stroke in patients with atrial fibrillation. We expect our hemophilia drug Kogenate® to have a sales potential of €1 billion.

Our CropScience business has brought as many as 16 new active ingredients to market since 2000. We anticipate a total sales potential from our CropScience pipeline – including these and a further ten active ingredients scheduled for launch by 2011 – of up to €2 billion. Seed dressings and our Environmental Science and BioScience businesses also promise opportunities for above-average growth.

Bayer MaterialScience is a world leader with leading-edge technologies, ranking top in polyurethanes and coating raw materials and second in polycarbonates.

### **Safe products:**

#### **Early identification and avoidance of risks**

We have established comprehensive systems to identify risks associated with our developments at an early stage and to avoid them; these include product evaluations and various forms of product monitoring and field studies carried out by the subgroups (see page 54 et seq.). Evaluations are undertaken as part of a wide variety of programs designed to research the properties of our products and to ensure that they are handled safely. The data obtained in this way are documented in registration dossiers, databases, safety data sheets and instructions for safe use. Our specialists are involved in a large number of expert groups and external bodies to ensure that comprehensive information and in-depth analyses of substances are generated and perpetuated systematically on a regional, national and global level. Before significant investment decisions are made, we carry out systematic analyses of the health and environmental impact of our products and processes. These analyses focus on local production methods and the entire product life cycle from manufacture to disposal. In spite of all our efforts, however, various points of criticism arose in the reporting period 2004/2005.

In connection with the litigation regarding Lipobay/Baycol, some 5,000 lawsuits were still pending worldwide on March 31, 2006, approximately 4,900 of them in the United States (including several class actions). By the same date, Bayer had settled about 3,100 cases worldwide without acknowledging any legal liability, resulting in payments of approximately US\$ 1.15 billion. On a voluntary basis and without acknowledging any legal liability, Bayer will continue its policy of trying to agree on fair compensation for people who experienced serious



side effects from Lipobay/Baycol. In the United States five cases have been tried to final judgment to date, all of which resulted in verdicts in our favor.

Our quarterly reports contain information on other products which have been the target of criticism, such as PPA and Cipro®.

#### **Sustainable products: Potential for the future**

We factor sustainability aspects into the equation when developing all the products in our portfolio. We also set our sights on attaining a specific sustainability advantage in particular areas. In this respect, we concentrate on meeting two major challenges: climate change and global water demand.

#### **Example of renewable energies**

The new Bayer plastics for solar energy applications provide this future technology with substantial optimization potential. The polyurethane Bayflex® not only represents a cost- and energy-saving alternative to the existing aluminum frame used in solar modules, it also enables easier and quicker assembly. What's more, the Bayer material Desmopan® is outstandingly well-suited to the manufacture of solar modules. Desmopan® fulfils the dual function of embedding the silicon cells and bonding with the polycarbonate or glass panels. The material's properties increase the effectiveness of the solar module manufacturing process.

#### **Example of reduction in water consumption**

When we develop new crop protection products we make every effort to see that natural water resources and living organisms in aquatic ecosystems come to as little harm as possible. A very strict evaluation process means that only a fraction of all the potential new products meet the stringent

approval criteria. But our concern for the world's water resources goes far beyond the product development stage; we also pursue an active and comprehensive range of activities to promote good agricultural practice with our products.

Much of the water consumed in Asia is used to grow rice. In the Philippines, rice is either pregerminated and sown directly or, in the traditional method, young rice plants are transplanted to the growing field. Direct sowing is becoming increasingly popular because it involves less work. Bayer CropScience brought the new herbicide RiceStar® Xtra onto the market in 2002. This product is used in both cultivation systems to combat Leptochloa, a type of grass that is difficult to control and has spread widely in recent years. Following the introduction of the new product, the direct-sowing method became established more rapidly as farmers learned to trust its efficacy. Since the direct-sowing method uses about 20 percent less water than the traditional method, our product is also making an indirect contribution to reducing water consumption.

#### **www**

- 13** Information on the legal risks to which the Group is exposed in the Quarterly Report for the first quarter of 2006

## Rules on competitive conduct

In 2004 we tightened up our “Program for Legal Compliance and Corporate Responsibility.” This code of conduct explicitly states: “The company is unreservedly committed to the principle of free competition and to ensuring that contracts with its business partners are entered into on fair terms. We expect others to show a similar commitment. Anti-competitive practices that are illegal per se include: joint price-fixing with competitors, agreements on market shares, agreements on production capacities, market divisions, customer divisions and agreements to dictate or control a customer’s resale price. Any kind of concerted actions, informal talks or gentlemen’s agreements that are intended to restrict competition, or may have the effect of doing so, are prohibited. Employees must not even give the appearance of being party to any such conspiracy.”

Cases in the past that violated this code seriously damaged our reputation and resulted in hefty fines. Expenses for antitrust proceedings alone came to €336 million in 2005. We sincerely regret these infringements of the law. Employees who knowingly violate our regulations and harm the Bayer Group through their actions can expect harsh sanctions, including dismissal.

The Program for Legal Compliance and Corporate Responsibility also contains clear statements on blackmail and corruption: “No personal favors of any kind shall be offered or rendered to any domestic or foreign public official or to an employee of another company.” The only exceptions to this rule are the usual gifts and giveaways of low value. Moreover, it is company policy not to make donations to politicians, political parties or institutions connected with them.

In the United States there are independent organizations that collect funds to finance election campaigns. One of these is the “Bayer Corporation Political Action Committee (BAYPAC).” BAYPAC is not supported by either Bayer AG or by Bayer Corpo-

ration. Employees at Bayer Corporation made private donations of around US\$ 122,000 in 2005.

### **Bayer’s political activities: Showing our position**

Bayer regards itself as a member of society. From that it derives a duty and a right to play a competent role in shaping political opinion. At the same time, Bayer is one of the companies that is regularly impacted by new regulations. We therefore have an interest in ensuring that statutory and other regulations are based on the actual situation.

Bayer has liaison offices in Berlin (Germany), Brussels (Belgium and the E.U.) and Washington (United States) to engage in dialog with politicians. A Policy Coordination Circle spanning all subgroups meets once a month to discuss relevant political issues and agree on Bayer’s position on planned legislation. The Community Council on Political Activities, which comprises representatives of the subgroups, service companies and relevant Corporate Center departments, is responsible for general coordination of all activities in this field.

In 2004/2005 our political activities centered on proposed legislation on energy policy (trading in emissions allowances), the review of European Chemicals legislation (REACH) and genetic engineering (biopatents). Our efforts to protect our interests were not always successful. However, the draft REACH Regulation shows that our endeavors to achieve a more practical structure have been helpful.

We also take a stance through membership of a number of industry associations, professional initiatives and organizations that work towards sustainable development and corporate responsibility, including the United Nations Global Compact Network, the Global Reporting Initiative, the World Business Council for Sustainable Development (WBCSD) and the German sustainability forum “econsense.”

### Clear rules for employees who hold public offices

We maintain a database with the names of all employees who are actively involved in industry and professional associations and similar bodies. The database also includes German employees who are elected members of parliaments and local councils. We specifically welcome their willingness to accept such offices. To prevent conflicts of interest, in July 2005 we issued an "Officeholders Directive." This states: "Bayer unreservedly respects the independence of its employees in the performance of such duties." It also contains clear rules on the compensation of employees who continue to work for the company while holding full-time offices of this type: "The compensation to be paid must be commensurate with the scope of the work agreed upon and actually performed. No compensation will be paid unless such work is performed."

### Responsibility for regional development: Bayer's role in the local economy

As well as being a strong global player, Bayer plays a key role in the economy in the regions around its sites. We actively promote these regions and invest in our sites because we are convinced that they offer attractive conditions and high innovative potential. Above all, our presence in such regions helps us keep in touch with our markets.

#### www

- 14 Global Compact Initiative
- 15 World Business Council for Sustainable Development
- 16 "econsense" sustainability forum

### Sustainability indices

Bayer is included in various indices and in investment funds that highlight companies with a responsible corporate policy. These include the Storebrand Principle Funds, Advanced Sustainable Performance Indices (ASPI) Eurozone, the Dow Jones Sustainability Indices and the FTSE4Good index series.





# Seeking alternative energies

## Yazmin Cobos Colombia

*In Colombia, the production of alcohol generates heavily polluted effluent containing large quantities of organic material and salts. It has a very low pH. Yazmin Cobos has been working for some time on the treatment of this effluent by anaerobic fermentation (biological treatment) to decontaminate the water and utilize the resultant biogas as an alternative energy source. The composition of this wastewater after treatment is such that it can be used as a fertilizer. "The aim of my work is to conserve water resources and find new alternatives in energy production."*

*Photo: Yazmin Cobos in front of the wastewater treatment plant in Leverkusen-Bürriq*

## Ecological Responsibility

# Future-oriented, efficient and safe

**We exercise the greatest possible care towards humankind and the environment. The efficient deployment of resources and energy is at the heart of our environmental protection activities in day-to-day production. We also take very seriously any risks emanating from our products and production processes and evaluate them early in order to develop measures to control them or find alternatives. In the area of climate protection, we have set ourselves particularly ambitious targets and have already partly achieved them.**

Through the global “Responsible Care” initiative, the chemical industry acknowledged, earlier than other industries, manufacturers’ responsibility for their products. Bayer’s product-integrated environmental protection policy focuses on all the phases of a product’s life cycle, from the use of the raw material, through production and transport, to handling, use and disposal – in other words, “from cradle to grave.”

Chemical safety at Bayer is organized systematically and efficiently, and receives the necessary financial resources. On the other hand, we do not employ any patent solution because each substance has to be viewed differently according to the specific requirements in its particular field of application. From the legislative point of view, too, the authorities impose different demands from those of customers. The furnishing of customers with safety data sheets plays a key role in Bayer’s open and trustful ongoing relationship with customers. Here, Bayer goes well beyond the legal stipulations: We publish safety data sheets not only for products that are classified as hazardous, but

for all our products, following the principle of “no safety data sheet, no product.”

Another example of the way we responsibly handle potential risks are the safety appraisals we perform in the context of environmental compatibility. At Bayer CropScience, they are an integral part of product development. For example, an examination is made of the effects of crop protection products on representative non-target organisms in the water, soil and air. Laboratory conditions do not necessarily yield definitive information on the variety of possible effects, which is why a comprehensive evaluation of product safety also covers field trials examining the effects of crop protection products. In addition, our global product stewardship measures ensure that our products are used responsibly.

In 2000, to optimize the products that Bayer takes to market, we developed the so-called “Bayer Eco-Check.” This system helps us assess the environmental impact of a product at all stages of its life cycle, and thus enables us to point development in

the right direction early on in the life of a new product. Changes to the company's product portfolio and the experience gained with the Eco-Check over the past few years have indicated that there is a need to make some modifications to it. For this reason, the procedure for product assessment is currently undergoing comprehensive revision.

#### **REACH: Our position regarding a new chemicals policy**

With our commitment to product stewardship, we also support the goal of the E.U. Chemicals Policy to improve the safety of everyone involved along the product chain and to further enhance consumer safety and environmental protection. We have therefore been constructively involved in the re-shaping of the E.U. Chemicals Policy by submitting our own proposals. Environmental protection, consumer protection and competitiveness must be harmonized. Numerous discussions with stakeholders confirm that our view is correct. Emphasis must also be placed on the practicability of REACH, so that, with the predicted conclusion of the parliamentary consultations, attention is directed at its implementation: We are calling for support for implementation that is comprehensible for all parties. We are also active within the company itself and have initiated a process to prepare for REACH.

The same applies to the Globally Harmonized System of Classification and Labeling of Chemicals (GHS) formulated at the sustainability summit in Johannesburg in 2002 for the period up to 2008. At that time, the benefits were said to be an easing of cross-border trade that would also ensure a high, globally uniform level of safety in the handling of chemicals. Differing interests on the part of the countries involved are, however, threatening to destroy these benefits, which means that the original objective will not be achieved. Bayer wants to create better draft legislation through industry's involvement.

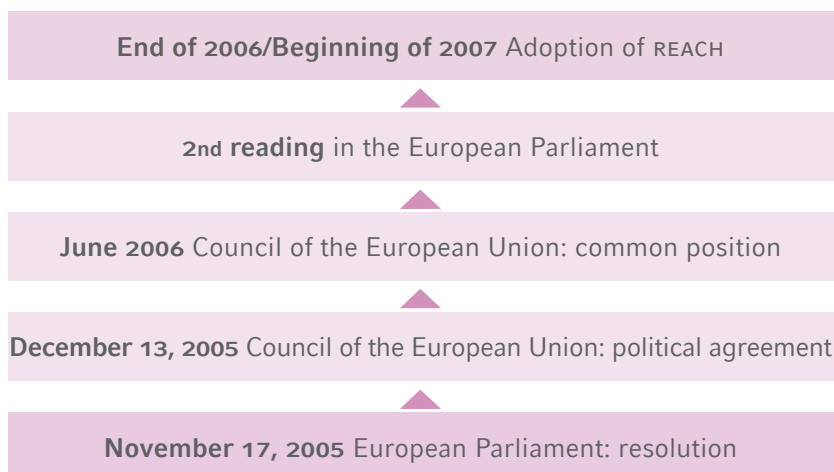
#### **Genetic engineering:**

##### **Potential for essential products**

Genetic engineering offers enormous potential for vital products and applications in health care, nutrition and environmental protection. Bayer uses this efficient technology in the development of new products and processes in three areas: "white" biotechnology (chemical products, wastewater treatment), "green" biotechnology (useful plants and renewable raw materials) and "red" biotechnology (drug development and production).

We see considerable growth potential for active substances resulting from red, medical and pharmaceutical biotechnology. We are also on course for growth as far as the dynamically developing green biotechnology is concerned, which is opening up completely new opportunities as regards the effective and specific production of renewable raw materials. White biotechnology, on the other hand, offers us alternatives to traditional chemistry. It enables processes to be used for the manufacture of products that are difficult or even impossible to obtain with traditional chemistry – for example, complex molecules such as proteins.

#### **REACH<sup>1</sup> timeline**



<sup>1</sup> Registration, Evaluation and Authorization of Chemicals

So that we can use the opportunities it offers and limit or responsibly manage the risks it entails, we attach major importance to the responsible use of genetic engineering. There is a statement in Bayer's Program for Legal Compliance and Corporate Responsibility on the subject of genetic engineering that states: "Our work in genetic engineering is governed by ethical values, and, in particular, by respect for human life and dignity." We therefore reject the idea of using genetic engineering to interfere with the human embryo.

Thanks to new developments, today's crop protection products have also attained a very high level of efficacy. Some time ago, because these products represent absolutely no risk either to man or the environment – provided they are properly used – we initiated, as part of our consulting services, training for local farmers, especially in threshold and developing countries. In the 2004/2005 reporting period, Bayer CropScience extended this service and launched seminars for small farmers in the People's Republic of China, India and Bangladesh. Through such training Bayer CropScience complies – as it does in its day-to-day work – with the "International Code of Conduct on the Distribution and Use of Pesticides" issued by the Food and Agriculture Organization of the United Nations (FAO) in 2002.

#### **Animal experiments: Protecting man and the environment**

To ensure the safe development of new active substances and products, experiments on animals (predominantly rats and mice) will continue to be unavoidable in the future. This is a highly emotional topic that affects all three Bayer subgroups. In connection with plans for European legislation (REACH, E.U. Plant Protection Directive), Bayer is therefore intensively involved, together with other representatives of the chemical industry, in the debate on the effect these regulations will have on the number of animal experiments. A broad industry coalition in favor of the "3 R" concept (Refinement, Reduction and Replacement) has already declared its willingness to cooperate with the European Commission. This concept aims to improve

the existing methods as regards careful treatment of the animals and a reduction in the overall number of animals per experiment.

The development of alternative methods is also being pursued. Validation of these tests is nevertheless proving to be a major challenge. For one thing, the results are not comparable in all areas – for example, with regard to the long-term effects and the determination of dose/effect relationships. For this reason, we regard animal experiments as necessary for the future protection of man and the environment. It will be impossible to find a full replacement within the foreseeable future.

We are already proving that the "3 R" concept is a very promising approach, as we have reduced the number of experiments in all departments to an absolute minimum. The number of animal experiments during the period covered by this Report has fallen again – from 112,000 animals in 2003 to 95,000 in 2005. This means we have been able to reduce the number of animals used in experiments by 78 percent since 1990. More than 90 percent of the animal experiments carried out by Bayer are required by law. Among other things, they assure the high standard of drug safety and basically ensure that we can all trust today's drugs. There are other animal experiments that are not legally required but are important because they involve basic research. They try to find answers to questions such as: How do certain processes actually take place in the organism? What factors play a decisive role in this? In such cases, animal experiments help to provide the basic knowledge that is needed to develop new forms of therapy.





## Future-oriented climate protection

In the environmental protection activities in its production plants Bayer focuses strongly on climate protection, one of the world's biggest challenges. This is because the chemical industry as an energy consumer makes a not inconsiderable contribution to the emission of gases that are partly responsible for global warming. According to the Kyoto Protocol, these gases comprise not only carbon dioxide (CO<sub>2</sub>), but also methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O) and halogenated and partially halogenated hydrocarbons. When calculating emissions, their percentages are converted into CO<sub>2</sub> equivalents.

In the 2004/2005 period covered by the Report, the absolute greenhouse gas emissions at Bayer dropped to 5.6 million metric tons of CO<sub>2</sub> equivalents in 2004 and 3.9 million metric tons of CO<sub>2</sub> equivalents in 2005. In total, greenhouse gas emissions throughout the Bayer Group decreased by over 70 percent from 1990 to 2005 – from 15 million metric tons to 3.9 million metric tons of CO<sub>2</sub> equivalents.

The key factors contributing to the reduction in environmental impact of over 5.5 million metric tons of CO<sub>2</sub> equivalent were our wide-ranging investments and technological innovations.

The most important single measures were:

- Incineration of N<sub>2</sub>O generated during the production of adipic acid (now part of Lanxess operations) – since 1993, this has eliminated approx. 4 million metric tons of CO<sub>2</sub> equivalents a year;
- Conversion of chloralkali electrolysis from the amalgam to the membrane process (reduction of approx. 0.4 million metric tons of CO<sub>2</sub> equivalents a year);
- In 2003, Bayer trod new ground with an innovative electrolysis process for producing chlorine from hydrochloric acid. The oxygen depolarized cathode technology consumes up to 30 percent less electrical power than the conventional diaphragm process.

Organizational changes such as the sale of Erdölchemie (3.0 million metric tons of CO<sub>2</sub> equivalents) and the carve-out of Lanxess (approx. 1.4 million metric tons of CO<sub>2</sub> equivalents) reduced the Bayer balance sheet by an additional 4.4 million metric tons of CO<sub>2</sub> equivalents, which are now booked to the new companies.

In addition, there has also been a reorganization of energy supply in Dormagen. Two older Bayer coal-fired power plants were closed and the necessary energy is now provided by a modern combined cycle and co-generation plant, with RWE serving as the contractor. This resulted in an additional reduction for Bayer of 1.2 million metric tons.

As a result, one of the goals of the Bayer Group, namely to halve climate-related emissions between 1990 and 2010, has already been achieved.

In December 2005, at the Climate Summit in Montreal, Bayer was presented with the “Low Carbon Leaders Award” by The Climate Group, an international climate protection organization founded in 2004, in recognition of its achievements in this sector. It met with a certain amount of criticism among the general public because the reduction in emissions is attributable not only to energy-efficient measures and the use of new technologies, but also to organizational changes. In this context, however, it is also relevant to look at energy consumption: In the Bayer Group, worldwide energy consumption has been reduced by around ten percent since the beginning of the 1990s. Evidence of the careful handling of resources and of increasing energy efficiency is provided above all by the fact that the reduction in energy consumption in relation to product volume declined by over 40 percent between 1990 and 2004.

**Emissions trading:****Higher costs due to higher electricity prices**

Bayer is integrated into the emissions trading system of the European Union (E.U.) with a total of 12 production plants in Germany, the United Kingdom and Spain, and was allocated the corresponding number of emissions allowances. They were sufficient in the first year to ensure day-to-day operation.

In the second trading period, which will extend from 2008 to 2012, the intention is to reduce the overall allocation to industry. From our point of view, this will have a negative effect on economic growth, because the reduction in the number of allowances available will push up their price, and consequently further increase the costs of our electricity and heat. Since we also purchase energy from external suppliers at our German sites, we will be directly affected by price increases.

In order to prevent such disadvantages, we advocate an industry-friendly solution, which, at the same time, supports the European Union's demanding climate protection targets. We are also keen to cut down the time-consuming bureaucracy connected with the current emissions trading system. Our interests are represented by the German Chemical Industry Association (VCI) and the European Chemical Industry Council (CEFIC). We are also a member of a Federal Ministry for the Environment working group looking at emissions trading to combat the greenhouse effect (AGE).

Our contribution to climate protection is, of course, not limited to the nations that have signed the Kyoto Protocol. We endeavor to consistently reduce emissions throughout the world, including in the United States. Through our voluntary participation in the four-year pilot phase on emissions trading of the Chicago Climate Exchange (CCX), we have committed ourselves to cut direct greenhouse gas emissions by one percent a year. At the end of the test phase, we will continue our commitment and also participate in the second phase of the CCX up to the year 2010.

**Energy savings:****Bayer materials utilize the potential**

Our responsibility for the global climate goes beyond optimizing our production processes. The products themselves also make an important contribution to lowering energy consumption. Our polycarbonate, for example, is frequently used as a substitute for glass and metal in vehicle parts, reducing the overall vehicle weight and thus lowering fuel consumption. Our polyurethane also reduces energy consumption, whether in the form of an insulating material in refrigerators or as heat insulation in buildings. Its outstanding insulating properties help to cut energy consumption very significantly. The total volume of polyurethane produced every year by Bayer and used in refrigerators alone helps to save around 11 million metric tons of CO<sub>2</sub>. As far as the insulation of buildings is concerned, a similar calculation shows an annual worldwide CO<sub>2</sub> saving of between 80 and 175 million metric tons. If we add together all the energy savings resulting from the use of the polyurethane and polycarbonate, we obtain a figure that exceeds the energy required to manufacture them several times over.

## Efficient resource management

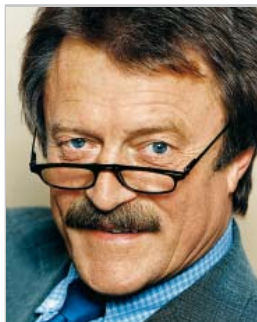
For Bayer, the efficient utilization of resources makes an important contribution to sustainable development. To reduce the consumption of energy and raw materials at its production plants – and thus cut emissions at the same time – Bayer utilizes every existing possibility for process optimization. That we are successful in this, and that resource productivity has risen consistently in the last few years as a result, is shown by the environmental statistics for solid waste, wastewater and energy (see page 69 et seq.).

Interest in renewable raw materials is growing, and we too apply them as starting products for our product range. Bayer MaterialScience uses sugar, glycerin, castor oil, soybean oil and other renewable materials in polyurethane and coating materials. At Bayer CropScience and Bayer HealthCare, the use of non-fossil raw materials is restricted to specialties and formulating aids. Their use will rise as their quality improves. At the same time, however, various technical and economic obstacles preventing the large-scale industrial application of non-fossil raw materials must be overcome. For technical reasons, it is not possible to change over to renewable raw materials for all products.

### Water: High investment in wastewater treatment

Water plays an important role in our production processes. Because it is such a precious commodity in many regions of the world, Bayer takes various measures to ensure that it is used sparingly at all its facilities around the world. Between 1994 and 2004, our water consumption remained virtually constant at around 2.2 million cubic meters a day, despite the acquisition of Aventis CropScience. Without what are now Lanxess operations, it fell to 1.2 million cubic meters per day in 2005. 54 percent of the water comes from surface waters, 35 percent from the groundwater and about 3 percent from the public drinking water supply. The lion's share of the water, namely just under 67 percent, is used as cooling water. It is taken from the sur-

face waters and returned there, without having been polluted. We operate high-efficiency wastewater treatment plants to treat contaminated wastewater.



### Cooperation with Bayer on the supply of drinking water

**Klaus Liedtke, Editor-in-Chief of National Geographic Germany**

*While the global population is constantly growing, the supply of drinking water – our most precious resource – is becoming constantly scarcer. Conflicts are brewing. The UN has therefore declared this decade "The Water for Life Decade" and aims to halve the number of people with no access to clean drinking water. At the same time, it wants to make people more aware generally of the need to conserve our water supplies and use the resources on a sustainable basis.*

*In a unique cooperation project, the National Geographic Society and Bayer AG decided to back this initiative by supporting scientists who carry out research on this topic. Nearly 100 project applications were submitted, nine of which have been selected for sponsorship following intensive evaluation. I am delighted about this response to our Global Exploration Fund and very happy that it brings together two globally operating enterprises to help solve one of mankind's most urgent problems.*

*Bayer AG is, after all, affected not only as a technology-producing company, but also, in many different ways, as a user of the raw material water. In collaborative projects such as this, Bayer also displays a responsibility to society. This commitment and its confession of faith to sustainable management create a direct bridge to the goals of the National Geographic Society, the largest non-profitmaking scientific organization in the world, which sees itself as a guardian of the cultural heritage and the natural resources of our planet (see page 49).*

A project launched in October 2005 by Bayer Industry Services (BIS) involves a considerable investment in wastewater treatment. By 2010, at a cost of €15 million, Bayer will modernize the clarification basins at its Waste Management Center in Leverkusen, which, apart from the effluent from the Chemical Park, also treats the wastewater from 300,000 residents in the catchment area. Through this modernization project, the inorganic nitrogen load will be cut by more than 40 percent.

The measures being taken at Bayer's U.S. sites are also exemplary. In 2004, the Baytown site in Texas (United States) received the Industrial Water Quality Achievement Award from the Water Environment Federation (WEF) because Baytown had, over a period of five years, complied fully with all the regulations despite consuming 40 million cubic meters of water a year, and had not, on one single occasion, exceeded the permitted wastewater thresholds.

A large number of companies throughout the world have successfully deployed Bayer Tower Biology® for the treatment of industrial effluent over the past two decades. The biological treatment process takes up significantly less space than conventional clarification basins, and is used above all where there is not enough room for a traditional wastewater treatment facility.

#### **Energy: Process for using biogas from sewage sludge**

At present, Bayer Industry Services is working on a new process to reduce sewage sludge. The project, which was launched in Leverkusen in 2005, aims to treat sewage sludge in such a way that biogas can be obtained from the organic con-

tent and used to generate energy. The residual inorganic content would then be deposited on a hazardous waste landfill. The European Commission is supporting the development of the process (which is based on three stages) as part of its "Life" environment program.

#### **Solid waste: Progress in the incineration of hazardous waste**

Since the end of the 1990s, we have been able to almost halve the total volume of waste. Compared with 2004, there was an increase in the volume of waste in continued operations in 2005, the majority of which was attributable to decommissioning and modernization activities (see page 75).

The positive overall development is the result of constant optimization of the production processes. The less raw materials the processes consume, the less waste they create. All the Bayer sites are duty bound to make efficient use of this waste. Our Berkeley site in California (United States) received the Environment Responsibility Award 2005 from Bayer HealthCare for the consistent reduction of its waste volumes and its recycling quota of 77 percent.

We have made considerable progress in the incineration of hazardous waste. Since 2002, Bayer Industry Services has been using a process in its incinerators that separates off the mercury from the flue gas. This readily volatile heavy metal causes problems in the purification of flue gas. The process has since been patented and, under Bayer license, has been helping for around two years to reduce mercury emissions worldwide in a technically proven and efficient manner.

## Safe production

Safe production plants, equipment and supplies are essential for successful manufacturing. Our specialists develop and build safe processes and production facilities throughout the world. And they also look after their operation, working in accordance with the very latest safety standards. There is probably no other segment that works within such a tight framework of legal regulations and controls. Our management systems, internal directives and tools for preventive and comprehensive product evaluation ensure that we comply with all the necessary aspects of safety, both during production and in transport.

Despite all the standards and innovations, however, we must not become complacent about safety, and must be prepared for every conceivable accident. For this, the individual subgroups have devised detailed emergency plans.

In addition to the emergency response plans at the individual production sites, Bayer CropScience has established a global emergency organization with a special control center in Norwich (United Kingdom). From there, the incoming emergency calls are passed to the departments on duty, which initiate and coordinate the emergency response measures. Incidents that have to be reported to the global control center include serious accidents, large fires, explosions, environmental hazards, and also other safety risks such as natural disasters, sabotage, extortion, attacks, riots and strikes. Every year, the center in Norwich takes between 10 and 15 emergency calls, most of which fortunately later prove to be less urgent than originally thought.

At Bayer, a Group-wide reporting procedure was introduced in 2000. In this "Bayer Emergency Response System," all information on dangerous incidents is collected. The aim of the system is to inform the relevant management levels quickly and comprehensively in crisis situations and following exceptional incidents.

### **Safety at the workplace:**

#### **Focus on avoiding accidents**

In the field of occupational safety, our safety experts are on hand to prevent illnesses and accidents by implementing preventive and protective measures. Proof of the high level of safety at Bayer is provided by the excellent statistics for occupational injuries. Occupational injuries were reduced again during the period covered by the Report (see page 79). As far as incidents at our sites are concerned, we do everything we can to improve the work processes so that comparable incidents can be excluded in the future.

### **Health management:**

#### **Wide-ranging services**

All Bayer sites offer their employees a comprehensive range of health care services, extending from basic care from company physicians, through acute medicine and investigative medicine, to psycho-social consulting, addiction consulting and addiction therapy. Our company health management system extends beyond health care at the place of work, also aiming to increase motivation and encourage and maintain the physical, mental and social well-being of the workforce.



# Team spirit learnt through sports inspires environmental commitment

## George Muchina Nguri Kenya

*George Muchina Nguri is convinced that sports improve environmental protection, which is why he is involved in the Green Space Project of the Mazingira Club in north-eastern Kenya. By playing sports together, young people learn to overcome indifference and selfishness and to behave with a social conscience. "This is the most important precondition for recognizing that our environment is a valuable resource that we must all work together to protect. The team spirit that sports inspire in these young people from the poorest regions of Kenya helps them to believe in their dreams, and to fight for the preservation of an environment in which these dreams can actually become true."*

*Photo: George Muchina Nguri from Kenya in front of the hazardous waste incinerator in Dormagen*

Employees and Society

## Assuming responsibility for others

**Bayer is one of the most respected companies in the world. This is confirmed by various international surveys such as a study published by the opinion and market research institute "Research International," which interviewed more than 1,000 opinion leaders in 2005. There are many reasons for this positive public image, including good social benefits and a trust-based relationship with stakeholders – as well as in no small part the company's tremendous efforts on behalf of society.**

In the period under review, Bayer spun off its chemical activities and parts of its plastics business into a new company called Lanxess, which has since been listed on the stock market. This realignment of course has also had an effect on the size of the company's workforce: On December 31, 2005, the Bayer Group employed about 93,700 people – approximately 22,000 fewer than on the same date in 2003. Nonetheless, this major change in operations was able to be undertaken largely in mutual agreement.

### **Remuneration and pensions: Systems harmonized throughout the Group**

The systems with which we enable our employees to participate in the company's success were further harmonized internationally in 2004 and 2005. Our staff receive a variable one-time payment or component as a share in our success. At all hierarchical levels, the budgets for these payments are dependent on the achievement of certain economic targets. By contrast, special payments that are not dependent on company earnings are being phased out step-by-step for non-managerial employees. Moreover, since 2005 our employees have been able to purchase a considerably higher number of

Bayer shares at attractive discounts. At the end of 2005, about 50,000 current and retired employees held roughly two percent of the capital stock.

The Bayer company pension plan offers our employees additional pension options. We need a clearly calculable cost framework in order to maintain this social benefit over the long term, however. That's why since 2004, we have pursued the successive conversion of our global pension plans from defined benefit to defined contribution systems. This process reached a preliminary conclusion in 2005 with conversion of the systems in the United States, Canada, Brazil and Germany.

### **Mission Statement: Values and leadership principles communicated**

The distribution of our new Mission Statement "Bayer: Science For A Better Life" to each employee was a focus of our communication in 2004 and 2005. The goal was to familiarize all employees worldwide with the Bayer Group's objectives, strategy and future perspectives. The values and leadership principles established in the Mission Statement have been integrated into our daily operations (see page 12).



## Equal opportunities for all

Equal treatment of all employees is an important principle of our corporate policy. The following is an excerpt from our Corporate Compliance Program: “No person is to be unfairly disadvantaged, favored, harassed or ostracized because of race, color, nationality, descent, religion, gender, age, physical characteristics or appearance.”

Promoting equal opportunity is one of the core points of our human resources policy. This means:

- offering equal entrance requirements and development opportunities to both genders,
- balancing individual career and life planning while giving consideration to work requirements,
- the same pay for the same performance.

### Family and career: Equal opportunity for women and men

The joint employee/employer task force “Promoting Equal Opportunity at Bayer” has concentrated on achieving these goals in Germany since it was established in 1990. It is left up to individual foreign subsidiaries to introduce programs and committees tailored to the regional, cultural and legal circumstances existing in their countries. In the United States, for example, Bayer Corporation in 1997 founded the “Bayer Diversity Advisory Council” (BDAC). This committee has the aim of furthering understanding among different cultures within the company, in part through the organization of seminars in which nearly all Bayer Corporation managers and many Bayer staff have so far taken part. In Germany, equal opportunity is addressed in numerous company agreements.

We also help our employees to balance family and career out of self-interest: We do not want to lose qualified female employees when they have a child. The details of this policy are established in Group Works Council agreements such as “Family and Career” and arrangements with family service and childcare facilities that provide pre-school openings for 250 children of Bayer employees at

the Leverkusen site. In the United States, Bayer Corporation is a leading employer when it comes to promoting the interests of working mothers.

We further accommodate employees with the offer of “extended” parental leave, as jobs are held open for such employees for up to seven years after the birth of their child. They may also return to the company in a part-time employment relationship. About 2,500 employees in Germany have taken advantage of such offers since 1985. We also offer young mothers and fathers other options for helping to balance family and career, such as part-time employment, flexible working times, annual work-time accounts, jobsharing and teleworking, as well as sabbaticals for longer periods of time.

Women accounted for 26 percent of our workforce on December 31, 2005, compared to only 23 percent at the end of 2003. The share of women in managerial positions, including senior management, at the German sites has steadily increased in recent years: At the end of 2005, women accounted for 14.8 percent of all managers, compared to 12.5 percent two years earlier. The share of female managerial employees at Bayer has increased by about 35 percent over the past ten years. We aim to further increase this percentage in the coming years.

### Employment of disabled staff in the company

A further Group Works Council agreement concerns equal opportunity for the severely disabled. Practical experience has shown that it is not possible to achieve the five percent share of disabled employees among the workforce that is required by law in Germany. At the end of 2005, severely disabled employees at Bayer accounted for 3.9 percent of all employees, and we are unlikely to reach the 5 percent mark in the foreseeable future. The company pays an annual equalization charge each time it fails to meet this goal. In 2004/2005, the charge totaled €1.1 million. At the same time,

in 2004/2005 we awarded contracts with a total volume of €440,000 to workshops employing severely disabled employees. No comparable legal requirements exist at our sites outside Germany. Nevertheless, we endeavor to offer employment opportunities to the physically disabled at those locations too.

#### **Vocational training:**

##### **Giving young people a chance**

Bayer has traditionally focused heavily on vocational training programs for young people. Each year on average, about 1,000 youngsters enter such programs at the German sites of Bayer AG and its affiliates. These young people have their own forum in the “Youth and Trainees’ Representation.” A further 300 trainees are employed at sites outside Germany where the dual training system is not in place but comparable systems exist. The company’s German sites offered about 1,400 university graduates from a wide variety of disciplines the opportunity to take part in an internship in 2004/2005. In October 2004, the German magazine *Junge Karriere* – “Young Career” – awarded us its seal of quality “Fair Company,” thus honoring our fair treatment of interns, who are given adequate compensation for their work and are not placed in full-time positions. We do not attempt to placate university graduates with an internship when they have applied for a regular position.

We offer a permanent employment contract to 100 percent of qualified Bayer trainees. Yet to Bayer, social responsibility also means training more young people than the company is likely to need. In this connection, we founded the AIR training initiative for the Rhineland area in 2004. As the trainees’ contractual partner, AIR coordinates and organizes theoretical instruction at the central Bayer training centers while the approximately 100 participating companies assume responsibility for giving the youngsters practical training in their facilities. These companies help pay the overall costs, with Bayer assuming the largest share of the program’s expenses.

In addition, Bayer in 1988 launched a special “jump start” program designed to give disadvantaged youths an opportunity to receive vocational training. Through special qualification measures, we help school graduates whose grades would otherwise be inadequate to prepare for a vocational training course. Through the end of 2005, 812 young people – or 85 percent of all trainees leaving the program – were offered regular training positions by Bayer at its sites in Leverkusen, Dormagen, Krefeld-Uerdingen, Wuppertal-Elberfeld and Brunsbüttel, or by other companies with training facilities.

Our companies in Argentina, Australia, New Zealand and Belgium were listed among the top employers in those countries by respected financial magazines and human resources consultants.

#### **Continuing education:**

##### **Challenges presented by demographic changes**

In view of demographic changes that will result in a growing share of older employees among our workforce, we must actively promote continuing education opportunities for our employees. Throughout the Bayer Group, we spend a total of €140 million each year – about 2.3 percent of personnel costs – on continuing education measures.

At the beginning of 2006, the German Minister for Labor and Social Affairs awarded Bayer the “Shaping Employment – Companies Demonstrate Responsibility” award in the category “Prospects for Young People” in recognition of the company’s commitment to vocational training. The jury singled out Bayer for the award because of its program to prepare disadvantaged young people for vocational training courses. In 2004 Bayer was honored by a German children’s charity for the same program.



18 Jobs and careers

19 Vocational training and continuing education

## Dialogue with employees

At all Bayer sites worldwide, employees have the right to elect their own representatives as called for by the United Nations Convention on Human Rights and the standards of the International Labor Organization (ILO). Nonetheless, significant national and legal differences exist. For example, codetermination by the employees in the Supervisory Board and on the site works councils is legally required only in Germany. And while works councils in Germany are comprised exclusively of employees' representatives, the councils in Belgium and France also include representatives of the employer.

### Employees' representatives: Pioneers of social dialogue in Europe

About 55 percent of our employees are based at sites located in the European Union. As early as 1991 – three years before the European Works Council Directive came into effect – Bayer AG's management and Works Council established the Bayer European Forum, which met for the first time in 1992. This step made Bayer a pioneer of social dialogue in the European chemical industry. In October 1994 the Group Works Council and Bayer's management signed an agreement to act on the recommendations of the European Works Council Directive. The Bayer European Forum is intended to foster dialogue among Bayer employees' representatives themselves as well as with the company's management. It is not intended for purposes of codetermination. Issues discussed at the Bayer European Forum include human resources policy, the company's economic and financial performance and political issues. Through 2005, for example, the employees' representatives at the Bayer European Forum had formulated three important declarations on the important issue of the E.U. Chemicals Policy.

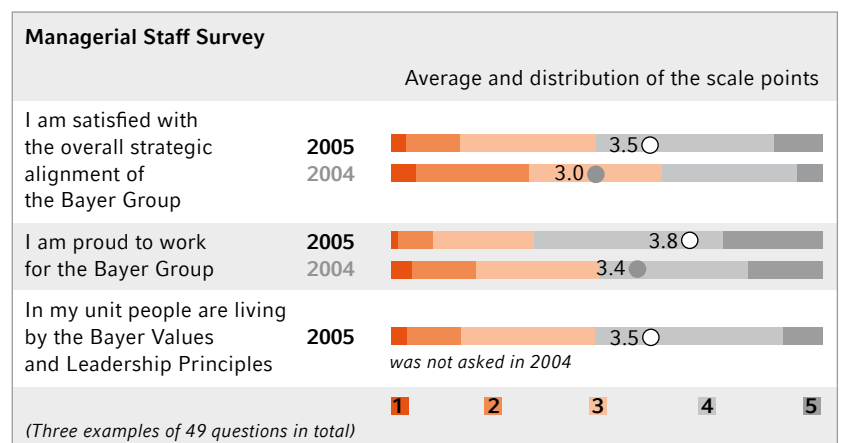
### Employees' rights: Globally valid, labor standards established

At the end of 2005, the Forum had 82 delegates from 20 countries. Representatives of the employer are also among the members. The Chairman of the

Board of Management and Labor Director of Bayer AG take part in the annual conference as well, giving this pan-European dialogue a high status within the company. This status is also reflected in the expansion of the organization: In 1997 a Joint Committee was established to function as a management body between the yearly conferences and to ensure that international themes are addressed during the year. A seminal role is played by the "social charter" adopted by the Bayer European Forum in 2002 that defines minimum social standards for Bayer Group employees worldwide. In this charter, Bayer undertakes to eliminate discrimination of any kind, support the advancement of employees and implement required restructuring measures in a socially responsible manner, among other objectives.

### Managerial staff survey: Positive results

In October 2005 we conducted a survey of our managerial staff for the second time. More than 10,000 employees in all countries responded to the survey, which found that the overall mood in the company had improved markedly within the previous year and a half. The next managerial staff survey is planned for 2007.



On a scale of 1 (strongly disagree) to 5 (strongly agree), the surveyed managerial staff were able to give their opinion on the various questions. The decimal numbers in the scales represent the respective average values. The responses to the first two questions show a considerable improvement in the overall mood within the Bayer Group.

## Social commitment: A part of Bayer's corporate culture

Social responsibility has always been an integral part of our corporate culture. Bayer began supporting social and cultural institutions at the end of the 19th century. What began with the Wuppertal and Leverkusen sites has long since been expanded on a global basis: Today we support about 300 projects around the world that are designed to improve the situation of people and the environment. In 2005 we provided approximately €50 million in funding for these projects. Our activities in this area focus on education and research; environment; health and social programs; and sports and culture.

### **Education and research: Promoting scientific knowledge**

As a research-based company, Bayer places particular emphasis on promoting intellectual curiosity among young people and supporting the sciences. For example, we provide schools with reagents and instructions for experiments in chemistry classes. We also give schoolchildren in the areas surrounding our production sites an opportunity to independently conduct scientific experiments dealing with chemical and biological themes under professional guidance.

As part of the educational initiative "Making Science Make Sense," which was founded more than ten years ago in the United States, Bayer employees help to design curricula in elementary schools. The Bayer experts use vivid experiments to try and awaken the children's enthusiasm for science. In honor of these charitable activities, Bayer at the beginning of 2006 became the first company headquartered outside the United States to receive the presidential "Ron Brown Award for Corporate Leadership." The program has since been established in the United Kingdom, Ireland and Japan as well.

Various Bayer foundations regularly award scholarships to students and illustrious prizes to outstanding scientists.

### **The environment: Enhancing young people's awareness**

Environmental protection and the responsible use of natural resources are essential for sustainable development. We aim to strengthen this awareness among young people in particular, as they will determine the future. In the context of the partnership we formed in 2004 with the United Nations Environment Programme (UNEP), we have initiated numerous youth environmental projects around the globe. In 2005, for example, UNEP and Bayer organized a Global Environment Summit in Bangalore, India, that was attended by 150 young environmental activists from all regions of the world. For the scientific congress "Eco-Minds," which took place in October 2005, students from a wide range of disciplines met in the Philippine capital Manila to seek practical solutions for environmental problems in the fast-growing Asia Pacific economic region.

Further highlights of Bayer's partnership with UNEP in the past two years were the annual international children's painting competition accompanying World Environment Day, for which in 2005 more than 10,000 children from 60 countries submitted paintings on the theme "Green Cities," and the Young Environmental Envoy program, which also takes place annually. In November 2005, about 50 dedicated young people from Asia, Latin America, Africa and Europe visited Germany for one week at Bayer's invitation to learn first-hand about modern environmental protection. In addition to these joint project activities, Bayer provides UNEP with €1 million annually in funding and additional material donations as the first private-sector partner to UNEP in the area of youth and the environment.

**Health care and social needs: Initiatives in newly industrializing and developing countries**

More than one billion people currently do not have access to clean drinking water. This is one of the major global problems of our time. To find new ways of exploiting freshwater sources and to explore water treatment options and ways of ensuring the responsible use of our most valuable resource, National Geographic Germany and Bayer founded the “National Geographic Global Exploration Fund” in 2005. From nearly 100 applications, Bayer and an international commission of experts appointed by National Geographic selected nine projects to which it will provide support. The funds from the Global Exploration Fund will enable the participating scientists from the German-speaking countries to pursue innovative ideas for conserving drinking water and begin field research in the Andes, in Africa, on the Indian subcontinent and in Siberia, among other locations. Having supported more than 8,000 research projects since 1888, the Washington, D.C.-based National Geographic Society is the world’s largest charitable scientific organization. Bayer is the first private-sector partner to enter a theme-based collaboration with National Geographic outside the United States.

In the area of preventive health care, we work closely with various international institutions to support initiatives aimed at fighting pandemic dis-

eases such as tuberculosis (TB), HIV/AIDS and African sleeping sickness.

**Tuberculosis:** In October 2005, Bayer HealthCare and the international product development partnership the Global Alliance for TB Drug Development (TB Alliance) signed an agreement concerning a clinical study program aimed at investigating whether Bayer’s antibiotic moxifloxacin (Avalox®) can significantly reduce the current six-month duration of treatment for tuberculosis. About 2,500 tuberculosis patients on four continents will be admitted to the study program. Should the trials prove successful, plans call for the Bayer product to be made available to patients in developing countries at affordable prices. Phase III of the study is scheduled to be completed in 2010.

**HIV/AIDS:** In Mozambique, Bayer HealthCare has provided the Catholic organization “Sant’ Egidio” with testing instruments and organized training courses to help with the introduction of the “DREAM” project to treat those infected with HIV. Reliable diagnosis is of the utmost urgency in Africa, as 90 percent of those infected are not aware that they carry the virus. In China, Bayer is working to achieve better AIDS prevention through information campaigns for the public. At Tsinghua University in Beijing, the company at the end of 2004 established the first course of study in China for health journalism, with a focus on HIV/AIDS. Furthermore, as a member of the “Global Business Coalition against HIV/AIDS,” we want to help achieve a responsible approach worldwide to this disease on the part of companies.

**Sleeping sickness:** Nearly 60 million Africans are threatened by African sleeping sickness, which is transmitted by the tsetse fly. In order to effectively treat these patients, Bayer HealthCare is making available its drug product Germanin® to the World Health Organization (WHO) free of charge, initially between 2002 and 2007. We also advocate a global “Integrated Sleeping Sickness Initiative” supported by numerous private and public institutions in order to contain a further outbreak of the disease in Africa.

**Social commitment in four areas**



When the Brazilian government in 2003 asked for assistance in the fight against hunger and poverty, Bayer immediately pledged its support. We work together with the non-governmental organization Agencia Mandalla in northeastern Brazil, which helps many families to install irrigation systems – also known as Mandallas – for more efficient agricultural use. In the short-term, the harvest yields cover the families' food needs. Over the medium term, however, the farmers expect to produce enough crops to be able to secure their livelihood by selling the surplus produce.

In addition to providing support for long-term projects, Bayer makes regular spontaneous donations either to supply health organizations with

medicines or quickly come to the aid of those affected by natural disasters.

Recent donations have included:

- 12.2 million units of the drug Kogenate Bayer® with a total value of over €9 million that the World Federation of Hemophilia (WFH) has provided to patients in developing countries
- 500,000 tablets of Lampit® that the World Health Organization (WHO) has deployed in the fight against Chagas' disease, an illness that is widespread in Central and South America
- 45,000 blood glucose measurement systems and monetary donations totaling nearly US\$ 4 million for victims of Hurricane Katrina in New Orleans and the surrounding area
- Monetary and material donations totaling €13 million for victims of the tsunami in southeast Asia at the beginning of 2005



### *Joining together in the fight against tuberculosis*

**Dr. Maria C. Freire, President and CEO of the Global Alliance for TB Drug Development (TB Alliance)**

*The TB Alliance is developing new drugs for tuberculosis. These new treatments are designed to be simpler, more effective and act faster than the standard six-month therapy.*

*Although much progress has been made in TB treatment over the past few years, almost two million people will die from this ancient disease in 2006. This is unacceptable. We can and must do better with new TB drugs that are affordable and accessible so that they reach the people who need them.*

*The partnership between Bayer HealthCare and the TB Alliance is a creative and pragmatic approach to solve this problem. By combining our scientific know-how with the commitment to affordable pricing, we can help achieve the United Nations' Millennium Development Goal of fighting the tuberculosis pandemic and other devastating diseases that disproportionately affect the poor.*

### **Sports and culture: Improving the quality of life**

Support for sports is also an important tool of Bayer's social responsibility around the world. In Germany, for example, the company makes an important contribution to the promotion of youth, recreational, competitive and disabled sports by supporting 27 sports clubs with a total membership exceeding 50,000. The company also supports 38 recreational and cultural societies. Our Cultural Affairs Department provides a diverse concert and theater program. At numerous sites outside Germany, too, "Bayer Clubs" give both employees and neighbors the opportunity to participate in sports and cultural activities.

#### **WWW**

- 20** Our foundations support education, research and science.
- 21** We have helped natural disaster victims through monetary, medical and material donations.
- 22** Bayer and UNEP jointly implement youth and environmental projects around the world.
- 23** "Making Science Make Sense" – our employee initiative to promote science learning in schools
- 24** Support for sports and culture

## Working to protect human rights

Fighting on behalf of chartered human rights around the world is a part of Bayer's corporate policy. This is not just established in our code of conduct: We also emphasize this claim through our membership in the Global Compact and the formal recognition by Bayer AG's Board of Management of the OECD Guidelines for Multinational Companies and the International Labor Organization's Tripartite Declaration of Principles on Multinational Companies and Social Policy.

### India: Project developed for protection against child labor

In India, where child labor is still a widespread social phenomenon, Bayer CropScience has developed a project for protection and support of children. In its contracts with the suppliers of cotton seed, Bayer's Indian subsidiary Proagro specifies that child labor will not be tolerated and companies will be penalized for violations.

At the same time, Bayer CropScience wants to ensure that children receive a school education. Proagro has therefore signed a cooperation agreement with the Indian organization Naandi Foundation, which possesses a wealth of experience in the area of schooling in rural areas. By the beginning of 2006, Naandi had already established 29 Creative Learning Centers (CLC) where children who previously worked in the agriculture sector and other areas are prepared for a school education. By the end of March 2006, 700 children were enrolled in preparatory schools. Proagro also supports continuing education for teachers at public schools in these villages and provides teaching materials for scientific curricula, among other resources.

Although Proagro occupies only a two percent share of the Indian cotton seed market, Indian associations, international institutions such as the International Labor Organization (ILO), governmental agencies and the media regard the program of Bayer CropScience in Andhra Pradesh as a pioneering initiative. This program also includes

measures that the government of Andhra Pradesh now recommends in the fight against child labor.

In addition to the contractual prohibition of child labor, the program contains the following elements:

- Economic aid with a micro-credit program for Indian farmers. Through Bayer loan guarantees, they receive access to low-interest bank loans and are thus protected from the extortionate interest rates of private lenders.
- Intensive education programs for social groups. As everyone must become involved in child protection, Proagro's child protection project is focused on model villages.
- Close cooperation with national and international organizations on the issue of child protection.
- Support for children through the school program. We aim to further expand our work with preparatory schools.

### Brazil: Cooperation with the Abrinq Foundation

In Brazil, too, Bayer works on behalf of children's rights. By cooperating with the Abrinq Foundation for Children's Rights, Bayer HealthCare's Consumer Care Division nine years ago succeeded in selecting only suppliers who prohibit child labor. Since 2002, the entire organization of Brazilian subsidiary Bayer SA. has borne the Foundation's logo as a "child-friendly company."





# The bright side of research

## Dorota Banaś Poland

*"The student dormitory at the Maritime University in Gdynia could be powered largely by solar energy," says Dorota Banaś, a dedicated climate protection activist. With her graduate thesis at this Polish university therefore, she has impressively demonstrated how it pays to lastingly break the dependence on fossil fuels and embrace new sources of energy. To this end, Dorota examined the cost-effectiveness of solar cells on the roofs of buildings and then tried out her ideas in field tests conducted on the university campus, thus making a contribution to the evolution of regenerative energy technologies.*

*Photo: Dorota Banaś from Poland in a greenhouse belonging to the crop protection research facilities in Monheim*



**Arthur Higgins,  
Chairman of the  
Executive Committee  
of Bayer HealthCare**

*As a leading, innovative health care company, Bayer HealthCare is committed to researching unmet medical need in the areas of oncology, hematology and cardiology. Improving health goes hand in hand with being a responsible corporate citizen, and we aim to work with both governmental and non-governmental organizations to address major health problems.*

## Bayer HealthCare

As a research-intensive company, Bayer HealthCare (BHC) invested approximately €2 billion in the development of new active substances, drug products and diagnostic systems in the 2004/2005 reporting period. BHC's research is concentrated on the treatment of cancer and cardiovascular diseases. BHC's highest-selling products include Ascensia®, an umbrella brand for blood glucose measurement systems and services; Kogenate®, a recombinant blood coagulation Factor VIII product; Adalat®, an antihypertensive drug; Aspirin®, an analgesic; and Ciprobay®/Cipro®, an antibiotic used to treat infectious diseases.

### Research into rare diseases as well

Bayer HealthCare's activities are not concentrated solely on the development of drug products to treat widespread diseases with correspondingly large sales potential. The Bayer subgroup also develops therapies for diseases that only affect a small number of people. One example in this context is the treatment of advanced renal and hepatic cell carcinoma with the new anticancer drug Nexavar®. The European Union (E.U.) and the U.S. Food and Drug Administration (FDA) granted orphan drug status for this substance in the treatment of metastasizing renal cell carcinoma in 2004 and hepatic cell carcinoma in 2006. Orphan drug status is awarded to substances that are being developed for the treatment of rare diseases. This status also grants the drug manufacturer exclusive marketing rights for a defined period of time (seven years in the United States and ten years in the E.U.), provided that the company complies with certain requirements (see also page 28).

Likewise in 2004, Bayer HealthCare was granted orphan drug status by the European Commission for acetylsalicylic acid in the treatment of polycythemia vera, an extremely rare disease in which blood cells multiply in an uncontrolled fashion. The Commission's decision to grant this status is confirmation that supplementary treatment with acetylsalicylic acid (ASA), the active ingredient of Aspirin®, considerably reduces the risk of the patient suffering myocardial infarction or stroke. Patients suffering from polycythemia vera are particularly susceptible to circulation disorders and vascular occlusion, with consequences ranging up to premature myocardial infarction or stroke. Acetylsalicylic acid inhibits the aggregation of blood platelets and thus markedly reduces the risk of myocardial infarction or stroke.

### Public access to clinical trials

On average, ten to 12 years elapse from the first stages of active substance discovery until the finished drug product reaches market maturity. A large proportion of this time is taken up by various phases of the mandatory clinical trials. The costs associated with these clinical trials amount to some €800 million – a huge investment that is nonetheless vital: In most cases, only one of the 5,000 to 10,000 investigated substances will achieve regulatory approval.

Since July 2005, Bayer HealthCare has provided information about the clinical trials conducted by its Pharmaceuticals/Biological Products and Consumer Care divisions in the Internet. Physicians, scientists and the general public can find out about all trials that have got under way since October 1, 2002. By providing this information, BHC has met

expectations regarding the transparency of its research and is acting in harmony with the corresponding position of the Pharmaceutical Associations of Europe, Japan and the United States as well as the International Federation of Pharmaceutical Manufacturers and Associations (IFPMA).

#### Educational measures on drug safety

Business deals with counterfeit drug products represent an increasing international problem. In addition to financial damage, counterfeit drugs can also cause considerable harm to the patient's wellbeing. Many counterfeit drugs contain no active substance at all or do not contain the right active ingredient. Added to this is the fact that sub-standard base material, erroneous manufacturing processes, contamination, additives and improper storage can lead to substantial quality deficits. Bayer HealthCare has now launched its own educational website dealing with this problem. The site offers specific tips on how to recognize counterfeits and avoid their purchase.

#### Bayer HealthCare's sustained commitment

BHC is dedicated to promoting human well-being, as is clear from its range of products. In addition to comprehensive research activities and supporting informational and educational measures, however, BHC is also involved in numerous sponsoring measures and drug donations (see also page 48 et seq.).

In its work to prevent major widespread diseases, BHC is committed to prophylactic measures that take effect at as early a stage as possible. Since 2004, Bayer HealthCare has been motivating people to take their own steps to counteract disease by means of a large-scale campaign: Keeping healthy not only improves the quality of life but also helps patients to save treatment costs and reduces the burden on health care systems. BHC's health initiative is backed by well-known sponsorship partners, such as the German Heart Foundation and the German Diabetes Foundation. In 2005, BHC entered into a three-year project partnership with the

<b>Head office:</b>	Leverkusen
<b>Sites:</b>	100 in all regions of the world
<b>Employees:</b>	approx. 33,800 (2005)
<b>Sales:</b>	€9.43 billion (2005), €8.06 billion (2004)
<b>Specific directives:</b>	"Policy on Health, Safety, Environment and Quality"
<b>Management systems:</b>	HSE systems for health, safety and environmental matters are in place in all sites worldwide. Our drug products are manufactured and monitored in accordance with the quality norms of GMP (Good Manufacturing Practice).
<b>Certifications relevant to the product portfolio:</b>	GMP, ISO 9001, OHSAS 18001, GLP (Good Laboratory Practice)
<b>Member of:</b>	Verband forschender Arzneimittelhersteller (VfA), Bundesverband der Arzneimittelhersteller (BAH), Verband der Diagnostica Industrie e. V. (VDGH), Bundesverband für Tiergesundheit e. V. (BfT), European Federation of Pharmaceutical Industries and Associations (EFPIA), International Federation of Pharmaceutical Manufacturers Associations (IFPMA), Freiwillige Selbstkontrolle für die Arzneimittelindustrie, German Pharma Health Fund e.V. (GPHF)
<b>Website:</b>	www.bayerhealthcare.com

World Heart Federation, working together with this organization in particular in the field of cardiovascular disease prevention.

Bayer is also collaborating with the Global Alliance for TB Drug Development (TB Alliance). A global clinical trial program has been set up to investigate whether Bayer's antibiotic moxifloxacin (Avalox®) can shorten the standard length of treatment for tuberculosis, which currently takes six months. If the trials proceed successfully, moxifloxacin will be used for tuberculosis indication and made available at an affordable price to patients in developing countries.

In November 2005, BHC again helped the World Health Organization (WHO) in the battle against Chagas' disease with a donation of 250,000 Lampit® tablets (active ingredient: nifurtimox). BHC has now provided a total of 500,000 Lampit® tablets to the WHO. Furthermore, BHC is prepared to make this product available to the WHO at a special price in order to safeguard the long-term supply for the future. Chagas' disease is a widespread parasitic infection in Latin and South America. The causative agent of this disease is transmitted by blood-sucking insects, blood transfusions with infected blood, or in some cases already in the womb of the infected mother. The WHO intends to eliminate Chagas' disease by 2010.

#### **Disseminating knowledge to young people**

BHC's regional activities are focussed on the dissemination of knowledge: BHC regards the qualification of young people as one of the most important investments in the future. To make sure that the process of education is well under way even before vocational training commences, BHC conducts special BayLab programs in Germany, which are designed to stimulate curiosity and scientific spirit. By the end of 2005, more than 3,000 young people had taken advantage of this program annually to improve their knowledge of the natural sciences.

Another long-term educational project has been launched in partnership with the Carl-Fuhlrott-Gymnasium high school in Wuppertal, Germany. The project, entitled "KURS 21 — Schulen unternehmen Zukunft" is an initiative of the renowned "Wuppertal Institut" and the "Institut Unternehmen & Schule" designed to bring students and companies together. It uses talks and transfer projects to promote the establishment and exchange of fundamental perspectives. The objective of the project is to foster better understanding of sustainable development and how each individual can help to promote it.

#### **www**

- 25** Physicians, scientists and the general public can find out here about all trials that have got under way since October 1, 2002.
- 26** A new website provides information about the hazards of counterfeit drugs.

# Bayer CropScience

Bayer CropScience is one of the world's leading crop science companies in the fields of crop protection, non-agricultural pest control, seeds and plant biotechnology. The company has a balanced portfolio of crop protection products comprising insecticides, fungicides and herbicides. Extensive expertise, a high level of innovative skills and an international presence form the basis of the company's success. Bayer CropScience has the highest research and development budget in the global crop protection industry, and will continue to pursue growth through innovative technologies in the future as well.

In the reporting period 2004/2005 Bayer CropScience invested more than €1.3 billion in research and development. The company has launched 16 new active substances since 2000, with another ten scheduled to follow between 2006 and 2011. 193 patent applications were submitted in 2004, and 185 in 2005, confirming BCS's reputation as one of the most innovative companies in the industry.

## Voluntary code of conduct for the crop protection industry

Bayer CropScience subscribes to the International Code of Conduct on the Distribution and Use of Pesticides first published by the Food and Agricultural Organization (FAO) of the United Nations in 1985. This voluntary code of conduct contains rules for all government and private institutions and organizations which deal with crop protection agents, including the crop protection industry. The primary objective is to ensure that crop protection products do as little damage as possible to health and the environment throughout their life cycle, particularly when they are used in the context of integrated crop protection.

In biotechnology Bayer CropScience is committed to ensuring that the science develops responsibly. Our top priority is the safety of the environment,

consumers and farmers. For many years now, millions of farmers all over the world have been successfully using innovative seed enhanced by plant biotechnology methods. We are convinced that society's acceptance of this technology will grow in Europe too as the benefits for the consumer become more evident. We take stakeholder concerns into consideration right from the early development stage.

## Milestones in our sustainability strategy

The main impulse for BCS to develop a sustainability strategy came from the World Summit on Sustainable Development held in Johannesburg, South Africa, in 2002 in conjunction with the restructuring of Bayer CropScience. The process began with a survey of internal and external stakeholders in 2003 which was supported by the British non-governmental organization Stakeholder Forum for Our Common Future. A sound strategy for sustainable agriculture was completed in 2004, and implementation began the same year. The BCS "Sustainability Strategy" project team was established and a comprehensive program was put together. The program's goals are in line with the Group sustainability strategy of systematically anchoring the principles of sustainability at the management level and promoting sustainability in agriculture through innovative products.

A number of new products from Bayer CropScience which reached the market during the reporting period 2004/2005 have received recognition from many quarters. The U.S. authorities granted the new insecticidal seed dressing clothianidine (sold under the Poncho® brand) and the antifungal substances fluoxastrobin and prothioconazole organophosphate alternative/reduced risk status. Organophosphates are some of the most important crop protection agents in Class I as defined by the World Health Organization (WHO). The WHO has established a four-part classification system for labeling crop protection agents. Class I



**Professor Friedrich Berschauer, Chairman of the Board of Management of Bayer CropScience**

*Our sustainability strategy allows us to maximize our contribution to sustainable development in agriculture and to the continued value growth of our company.*

formulations pose a safety risk for operators under certain circumstances. In 1995 Bayer CropScience undertook to successively replace Class I products in order to promote the responsible use of its products and to enhance its product portfolio. Against this background, the classification of our new product clothianidine as an organophosphate alternative is an important step towards this goal. We have now stopped selling some of these products, and the formulation of others has been modified in keeping with the FAO code of conduct. All these measures are taking us closer to achieving our self-imposed goal.

#### **Targeted and effective use of crop protection products**

Our objective is to develop new crop protection products which combine a high level of biological efficacy with lower application volumes and are

particularly well tolerated by people and the environment. Seed dressings, a technology that does justice to all these goals, offers clear economic and ecological advantages. Dressing protects the seed, ensuring that young plants are healthy from the outset and considerably reducing the amount of product that needs to be applied to the fields compared with spraying. This protects ecosystems because beneficial organisms, for example, are not affected by this type of treatment.

We were very concerned about reports from France that some bee-keepers were alleging that unexplained losses of bee populations, particularly in the mid-1990s, were due to our seed dressing Gaucho® which contains the active ingredient imidacloprid. Since then numerous studies carried out by acknowledged international experts have shown that using Gaucho® in various crops does

<b>Head office:</b>	Monheim
<b>Sites:</b>	in over 120 countries
<b>Employees:</b>	approx. 18,800 (2005)
<b>Sales:</b>	€5.90 billion (2005), €5.95 billion (2004)
<b>Specific directives:</b>	Bayer CropScience's voluntary self-commitment to quality, health, safety and environmental protection (QHSE), 2002; Policy guidelines and key requirements for responsible product stewardship, 2004
<b>Management systems:</b>	Bayer CropScience is introducing an integrated management system for quality, health protection, safety and the environment that is in line with the global principles of Responsible Care and sustainable development. Successful implementation will be monitored and ensured by audits, management evaluations and, where necessary, improvement projects.
<b>Certifications relevant to the product portfolio:</b>	ISO 9001, ISO 14001, OHSAS 18001. Individual sites or departments are also certified to ISO 17025, GLP (Good Laboratory Practice), GMP (Good Manufacturing Practice) or local environmental standards.
<b>Member of:</b>	CropLife International (international association of crop protection manufacturers and the bioindustry), ECPA (European Crop Protection Association), EuropaBio – European Association for Bioindustries, DIB (German Association of Industrial Biotechnology), Federal Association of German Plant Breeders, IVA (Association of the Crop Protection and Fertilizer Industry in Germany).
<b>Website:</b>	<a href="http://www.bayercropscience.com">www.bayercropscience.com</a>

not harm bees. We share the bee experts' opinion that the periodic problems with bee health are due to a number of factors including infestation by parasites (particularly Varroa mites), environmental influences and agricultural or bee-keeping practices.

Product stewardship is one of our over-riding concerns relating to the use and disposal of crop protection products. Intelligent application and packaging technologies can go a long way to optimizing product use and safety. Training programs to ensure the safe handling of our products are adapted to the specific needs of farmers in each country. But our responsibility for our products goes far beyond their use; it also includes management of empty product packaging and the disposal of products which have exceeded their shelf-life. Bayer CropScience is one of the lead companies in projects being pursued to ensure that old stocks held by governments are disposed of safely. The company has provided financial and technical support in the elimination of old stocks in a number of countries.

### **Modern seed for healthy food**

Bayer CropScience and its technologies are making a major contribution to safeguarding harvests and producing high-quality agricultural goods. Crop protection measures and improved seed both have a role to play. For example, we are developing plants which have a greater ability to withstand environmental stresses such as short-term drought. This will be an important factor in the future as climate change occurs in many of the world's agricultural regions.

The rapid increase in life expectancy in many countries is also generating an increased demand for suitable food that can keep people healthy and reduce the risk of diseases. Plant biotechnology will play a growing role in helping to increase agricultural yields and make plants even healthier. Bayer CropScience is collaborating with the American company Cargill to produce enhanced canola oil with a higher oleic acid content and better heat stability from high-quality seed developed by BCS.

These new properties are advantageous in oil for deep-frying, for example, as they are more healthy and confer a better flavor. Genetically modified plants can also be used as a renewable raw material for energy production, as a raw material for industrial processing, or as production systems for plant-made pharmaceuticals.



**27** A special edition of the Courier published by Bayer CropScience focuses on sustainability, providing extensive information on subjects including the BCS strategy for sustainable agriculture, stakeholder relationships and the implementation of product stewardship (PDF file).



**Dr. Hagen Noerenberg, Chairman of the Board of Management of Bayer MaterialScience**

*We take our mission statement VisionWorks literally. We know that visions are required to retain the trust of staff, customers and users, both today and in the future. For that reason, we opt for innovative processes and products that increase the quality of life through their energy efficiency, environmental compatibility and minimal use of resources.*

## Bayer MaterialScience

As one of the world's leading manufacturers of high-tech materials and innovative system solutions, Bayer MaterialScience (BMS) offers products that many industries use as intermediates for everyday goods. As a result, our products have become an integral part of our daily lives and make a decisive contribution to the quality of life. Principal customers are the automotive and construction industries, the electrical/electronics sector and manufacturers of sports and leisure articles, packaging and medical equipment. Innovative developments from Bayer MaterialScience include the high-tech plastic polycarbonate, polyurethane raw materials for rigid and flexible foams, for elastomers and as bases for coating, adhesive and sealant systems. Bayer MaterialScience's key brands include Makrolon®, a polycarbonate used to produce CDs and DVDs, Desmophen and Desmodur®, raw materials for foam products in the furniture and construction industries, and Baydur®, a polyurethane system for technical housings. True to its mission statement "VisionWorks," research and development are a key element of BMS, an innovation-driving company that registers a new patent almost every day.

### **Focus on energy efficiency and CO<sub>2</sub> prevention**

The Polyurethanes Business Unit (which develops and produces intermediates for flexible foams, rigid foams, integral skin foams, elastomers, etc.) and the Polycarbonates Business Unit (which includes the premium brand Makrolon®) are responsible for 70 percent of Bayer MaterialScience's sales. Polyurethanes are used in car seats, refrigeration and heat insulation, and in plastic frames for solar modules. Polycarbonate applications cover everything from vehicle windscreens and stadium roof constructions to laminate systems for drivers' licenses and all kinds of ID cards. Many of these applications provide heat insulation or replace heavier materials such as metal or glass produced using greater quantities of raw materials.

The high-grade plastics enable significant energy and CO<sub>2</sub> savings while delivering higher product quality (see page 29).

### **Energy-saving chlorine production**

The production of chlorine is one of the most energy-intensive processes in the chemical industry. Chlorine is an important raw material for the production of polyurethane raw materials and polycarbonates. By using the new oxygen depolarized cathode technology in the electrolysis of hydrochloric acid to chlorine, Bayer MaterialScience has greatly improved the energy efficiency of this process. Oxygen depolarized cathode technology requires up to 30 percent less electrical energy than the conventional diaphragm method. BMS commissioned the first industrial plant to use this new method in the Brunsbüttel factory in 2003 and received an award for this innovation from the American Electrochemical Society (ECS) in 2005.

### **Car roofs of the future**

The latest Mercedes A and B class have roofs featuring five transparent, gray-toned lamellas made from the polycarbonate Makrolon® AG2677 from BMS. In terms of its property profile, this material is a specially optimized grade of polycarbonate for automotive glazing. Its use opens up a world of completely new design options that would not have been possible using glass. A further plus is that a Makrolon® roof makes the vehicle lighter, which in turn means less fuel consumption. Because of its many processing possibilities, such as injection molding, polycarbonate significantly reduces system costs by integrating a variety of functions.

### **Renovating drinking water mains**

Drinking water mains may be hidden under the ground, but they play a vital role in our daily lives. Many water mains pipelines are outdated and urgently require maintenance. In the south-west of England, for example, general renovation work is



being carried out on the drinking water mains system, which dates back in part to Victorian times. Take Plymouth in the county of Devon. This was the first mains system with a large interior diameter of 36 inches (91.4 centimeters) to be renovated and given an interior polyurethane protective coating formulated using Bayer MaterialScience raw materials. The project was honored by the UK society for Trenchless Technology (UKSTT) in 2003 as the best renovation project for large mains systems. Modern coatings have to minimize interruption to the water supply, allow reliable maintenance in a whole range of climatic conditions and be insensitive to poorly prepared surfaces, as well as complying with national drinking water standards. The new solvent-free, environmentally friendly and sprayable polyurethane coating developed jointly by Bayer MaterialScience and E.Wood, meets all these criteria. A key component in the coating is our Desmodur® XP 2599. Using this new coating system, damaged drinking water mains manufactured from different materials can be put back into long-term operation without any reduction in capacity. The stability of the pipelines is safeguarded in the long-term even when the original pipeline decomposes. Heavy water losses are avoided and the duration of the maintenance work is also much

shorter than in the past. This enabled the complete renovation of a 150-meter section of pipe with a series of domestic connections within one and a half days. With traditional technology, this would have taken around a week and a half. This was reason enough for the pioneering technology to receive the Queen's Award for Innovation in 2006.

#### Innovative products

Composite elements are a key focus of research and development in the field of polyurethanes. The expert combination of lightweight materials, which can also be produced from renewable raw materials, enables the generation of completely new property profiles using specially developed polyurethane systems. The outstanding property of these elements is their very high resistance to mechanical loading and their low weight. State-of-the-art technologies enable the efficient production of elements with hitherto unattainable contours, e.g. for use in automotive engineering. Examples include the Multitec® spraying process and Baypreg® honeycomb technology, which are used to manufacture the parcel shelf of the Opel Vectra Caravan and the rear spoiler on the Daimler-Chrysler Crossfire.

<b>Head office:</b>	Leverkusen
<b>Sites:</b>	over 40 in all parts of the world
<b>Employees:</b>	approx. 18,800 (2005)
<b>Sales:</b>	€10.7 billion (2005), €8.6 billion (2004)
<b>Specific directives:</b>	"Policy for Health, Safety, Environment and Quality" (2004)
<b>Management systems:</b>	Based on the principles set out in the Responsible Care Global Charter, BMS has an integrated management system in place covering all aspects of health protection, safety, quality and environmental protection.
<b>Certifications relevant to the product portfolio:</b>	Based on the integrated management system, certification to ISO 9001 applies for all sites and divisions.
<b>Member of:</b>	PlasticsEurope, ACC, API, ISOPA, ALIPA, EUROCHLOR and others
<b>Website:</b>	www.bayerbms.de

### Managing the future

Visions and ideas are the catalyst and are found at the start of the innovation chain. Innovation is one of Bayer MaterialScience's three main corporate goals, alongside efficiency and growth. The company currently generates around 20 percent of the Group's consolidated sales from new products and applications developed in the past five years, and some 2,000 projects are in the development pipeline.

Alongside the actual benefit it brings, the safety and environmental relevance, and thereby acceptability in society, of each innovation or new technology is crucial for deciding whether it can be used widely. To this end, BMS consults closely with politicians and scientists and supports the launch of research initiatives in the expert committees of the chemical industry.

### Opportunities for nanotechnology

Great expectations are pinned on nanotechnology and nanomaterials, in both engineering and economic terms. It is hoped that they will give rise to opportunities for developing innovative products and processes that open up new areas of application and for further developing conventional products. This includes products and processes aimed at reducing everyday contamination of the environment or enabling highly efficient use of our natural resources. As a pioneer in research, Bayer is therefore keen to harness nanotechnology for developing innovations.

The new technology is increasingly important in the chemical industry for use in creating high-tech materials. Bayer MaterialScience has considerable expertise in the field of nanotechnology and sells many products that are based on this technology, including adhesive raw materials, polycarbonate blends with enhanced flame-retardant properties, scratch-resistance coatings, plastic media with high data-storage capacity, and materials for the electrical industry.

As well as paving the way for innovation, Bayer also conducts its own risk assessments in the field of nanotechnology. To record potential risks, Bayer works together with partners from industry, science and research in cross-company projects such as "NanoCare" and "Tracer" which are sponsored by the German Ministry for Education and Research (BMBWF) and its initiative "Material innovations for industry and society." One such project is with the Institute for Toxicology and Genetics at the Helmholtz Research Center in Karlsruhe.

In addition to these projects, Bayer is also involved in further initiatives and expert groups of national and international chemical associations, e.g. in working groups organized by the German Chemical Industry Association (VCI) and in the "Responsible Production and Use of Nanomaterials" working group of the German Society for Chemical Engineering and Biotechnology (DECHEMA).



28 Makrolon® roof in the Mercedes A-Class

29 Nanotechnology

# Bayer Business Services

In its role as a “shared service center”, Bayer Business Services (BBS) provides the Group with IT services worldwide. Bayer Business Services also offers these services to companies outside the Bayer Group and the public sector as business process outsourcing. The services from Bayer Business Services focus on IT, telecommunications, purchasing, logistics, HR, management services and finance and accounting.

## BaySIS® bundles site information

One of these services is the “Bayer Site Information System” (BaySIS®) developed in-house, which is a universal program for entering and analyzing environmental and security data. Each year, the 500 or so sites that belong to the Bayer Group provide more than 50,000 data records about the use of raw materials and energy, the volume of wastewater and waste, emissions of greenhouse gases and transportation accidents. This data collection enables Bayer to provide its consolidated group data at the touch of a button and to make it available in the first quarter of each new year. This makes BaySIS® indispensable to the company’s HSE (Health, Safety, Environment) management and Bayer’s sustainability reporting.

## Optimization of purchasing

As an additional service, Bayer Business Services helps its customers, for example, to tailor their strategic purchasing to cover demand. This can make a significant contribution to a company’s value added. To achieve this, we negotiate purchasing contracts with suppliers, for example, which can then be transferred into electronic catalog systems. Thanks to this and other solutions, the companies in the Bayer Group have been able to achieve a degree of automation in procurement of over 80 percent. Bayer Business Services has developed special modules such as the “Supplier Relationship Management” (SUPREME) program together with the purchasing departments of the subgroups and the other service companies. With these modules, ecological and social criteria can be queried when selecting and evaluating suppliers (see page 16 et seq.).



**30** Additional information about BaySIS®



**Dr. Andreas Resch,**  
Chairman of the  
Executive Board  
of Bayer Business  
Services

*Bayer Business Services takes its obligation to support sustained development very seriously. Our systems and services help Bayer to meet its economic, ecological and social responsibilities. BaySIS and SUPREME are two examples of how Bayer Business Services supports sustained development.*

<b>Head office:</b>	Leverkusen
<b>Sites:</b>	Argentina, Brazil, Germany, PR China, Singapore, Spain, United Kingdom, United States
<b>Employees:</b>	approx. 8,800 (incl. Local Services and trainee pool; 2005)
<b>Specific directives:</b>	Voluntary undertaking of Responsible Care by Bayer Business Services GmbH, 2003
<b>Certifications relevant to the product portfolio:</b>	ISO 9001:2000, SAP Customer Competence Center
<b>Member of:</b>	Institute of Electronic Business (IEB), IT Service Management Forum, German-language SAP user group (DSAG), Bundesverband für Materialwirtschaft, Einkauf und Logistik e. V. (Federal Association of Materials Management, Purchasing and Logistics) (BME)
<b>Website:</b>	www.bayerbbs.de



**Achim Noack,**  
**Managing Director**  
**of Bayer Technology**  
**Services**

*We use innovative problem-solving to make our contribution to improving yields or reducing emissions and will thus support processes for protecting the environment and conserving resources. We take it upon ourselves to design and build plants with the highest levels of technology and safety. As primary elements of Responsible Care, environmental and health protection and occupational and plant safety are additional important considerations.*

## Bayer Technology Services

Bayer Technology Services offers fully-integrated solutions over the life cycle of chemical and pharmaceutical plants: development, design, construction and process optimization. Bayer Technology Services serves within the Bayer Group as the scientific and technical backbone for the development of new technologies and processes.

One example from the company's product portfolio is BayFlotech®, a process introduced in 2005 for removing suspended particles from wastewater and process flows. This process uses a patented air saturation technology that requires only small amounts of flocculation aids and energy to achieve maximum solids separation rates with good environmental compatibility and low operating costs.

### Process optimization and environment-oriented solutions worldwide

Bayer Technology Services is the Bayer Group's competence center for process optimization. It plays a role in meeting the responsibility for our ecological and social concerns throughout the world. This includes implementing international standards and investing in state-of-the-art technology at all sites. All of our sites are certified according to demanding

quality management systems such as ISO 9001. We are proud of our construction site in Shanghai, China, currently our largest anywhere in the world, where roughly 3,500 workers are active each day with an injury rate of only 0.1 per million hours worked. This is a clear demonstration of our success in implementing uniform standards worldwide.

One example of environment-oriented innovations at Bayer Technology Services is a new process for the transportation of large quantities of salt for chlor-alkali electrolysis. Alone for the Dormagen, Germany site, up to 1,600 metric tons of salt for the production of sodium lye and chlorine were transported in open trucks until 2003. With the development of the "slurry process," the salt – which tends to clump – can now be pumped from the harbor through a pipeline, eliminating roughly 25,000 truck trips a year between the pier and the electrolysis unit in Dormagen. The process has also met with great interest outside the Bayer Group, and has already been sold to a number of international companies.

**www**

**31** Chloralkali electrolysis

<b>Head office:</b>	Leverkusen
<b>Sites:</b>	Belgium, PR China, Germany, Mexico, Switzerland, United States
<b>Employees:</b>	approx. 2,100 (2005)
<b>Specific directives:</b>	Policy: Health protection, safety, environmental protection and quality at BTS GmbH; HSEQ management system for health protection, safety, environmental protection and quality
<b>Certifications relevant to the product portfolio:</b>	ISO 9001 (Design and Construction of Industrial Plants), SCC (Construction and Erection Activity for Industrial Plants), ISO 17025 (Materials Testing) Profepa Industria Limpia (environmental protection certificate in Mexico as site operator)
<b>Member of:</b>	Forschungsgesellschaft Verfahrenstechnik e. V. (GVT) (Research Society for Process Technology), Verein Deutscher Ingenieure – Gesellschaft Verfahrenstechnik und Chemieingenieurwesen (VDI – GVC) (Association of German Engineers – Society for Chemical and Process Engineering), Interessengemeinschaft Automatisierungstechnik der Prozessindustrie (NAMUR) (Association of Users of Automation Technology in the Process Industry)
<b>Website:</b>	www.bayertechnology.com

# Bayer Industry Services

Bayer Industry Services (BIS) offers services in the chemical and technical sector. These cover utilities, waste management, infrastructure, safety, technical services, analytics and training and continuing education. BIS is the manager of the three interlinked Bayer Chemical Parks in Leverkusen, Dormagen and Krefeld-Uerdingen and serves more than 50 partner companies that have located to the Bayer-owned sites – including Lanxess AG. BIS also markets plots and buildings to companies wishing to set up operations there and helps potential entrepreneurs put their business ideas into practice through the “Bayer Chemical Start-Up Initiative.” The companies that have moved to the Chemical Parks have been convinced by the broad portfolio on offer: ideal logistical and technical conditions for business including a variety of product networks and a comprehensive range of services.

Bayer Industry Services provides essential services for the Bayer Group’s personnel management processes. Among other tasks, the company handles the company suggestion plan, the “Bayer Ideas Pool.” For its own employees BIS launched a new reintegration management program (BEM = Betriebliche Eingliederungsmanagement) at the end of 2005: Through this the company offers advice and assistance to all personnel who have been unfit for work for a continuous or total period of more than six weeks within a year. Since this initiative is managed

within the context of the company’s health management system, the reintegration measures it entails can be combined with stress management and health promotion programs.

BIS also plays a central communication role for the German sites by acting as a direct contact for the media and the public. The service company issues information on current developments at the Chemical Parks and organizes large-scale Bayer events such as the nationwide Open House day, a safety dialogue with the local community and tours for visitors to the sites.

## Environmental research

BIS is also active in researching and developing new environmental technologies. For example, a process developed in-house removes metallic mercury cost-effectively from the flue gas of hazardous waste incinerators. And in July 2005 the company launched a project to research the possibility of obtaining biogas through the fermentation of the organic constituents of sewage sludge and then disposing of the residual inorganic matter safely in the company’s hazardous waste incinerator. The European Union is promoting the project as part of its LIFE environmental support program (see page 75).



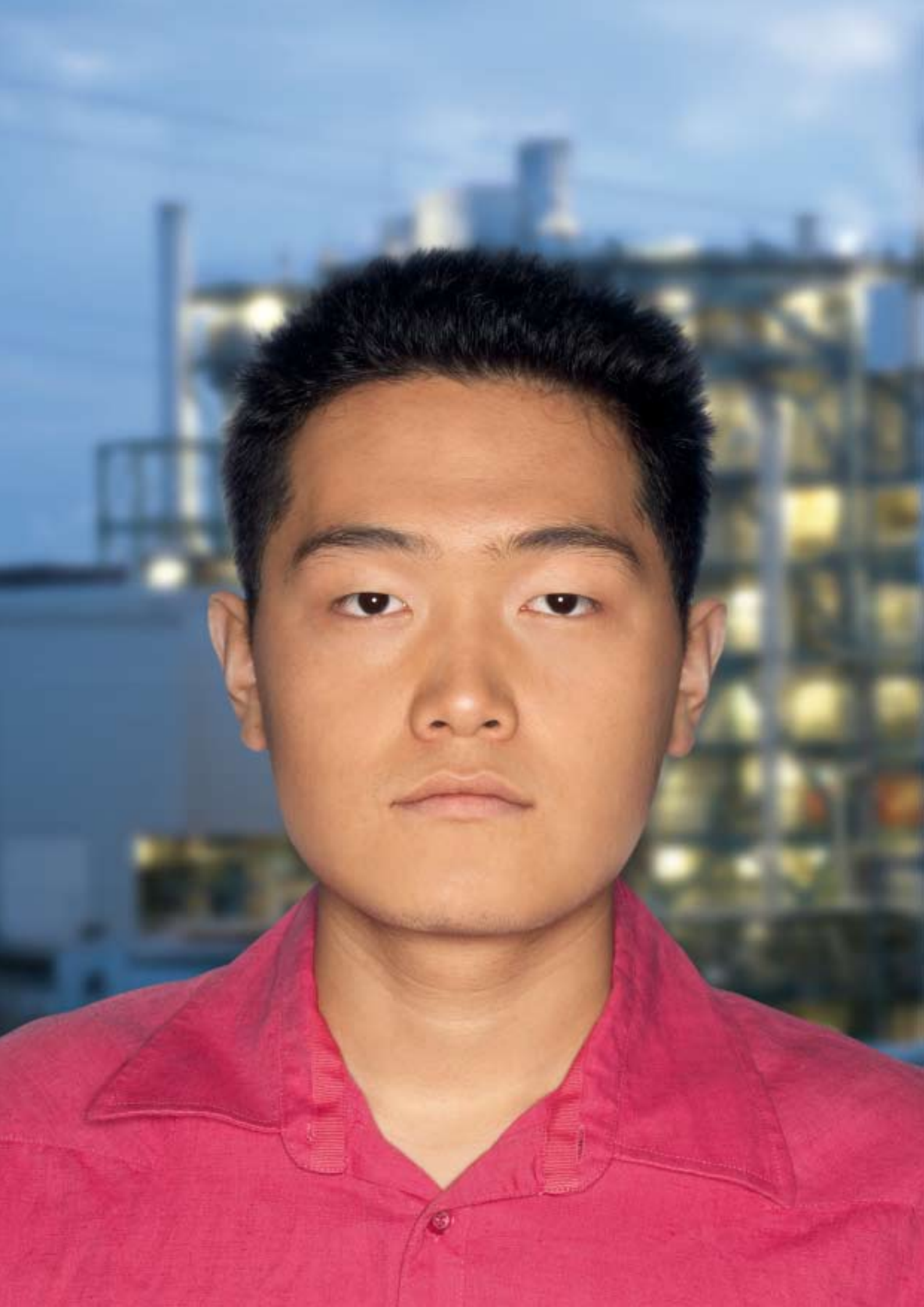
**32** Overview of environmental and disposal services



**Dr. Klaus Schäfer,**  
Chairman of the  
Executive Board  
of Bayer Industry  
Services

*Responsibility for the environment, the workplace and society in general is among our core values. As an innovative service-provider, we are committed to benefiting our customers and employees alike. In all other areas too we are focused on one thing: We want to continually improve and make a sustainable contribution to a future that is worth living in.*

<b>Head office:</b>	Leverkusen
<b>Sites:</b>	Leverkusen, Dormagen, Krefeld-Uerdingen Bayer Industry Services is a joint venture between Bayer AG and Lanxess AG
<b>Employees:</b>	approx. 10,900 (incl. trainees; 2005)
<b>Specific directives:</b>	“Policy on Health Protection, Safety, Environmental Protection and Quality” (2004), “RC Commitment of Bayer Industry Services” (2003)
<b>Certifications relevant to the product portfolio:</b>	ISO 9001:2000, ISO 14001, EfbV (German Ordinance on Specialized Waste Management Companies), SCC (Contractors), ISO 17025, GLP, GMP, § 25 LfG (German Agricultural Promotion Act) BAM/OFD (Federal Ministry for Material Research and Examination/Higher Financial Authorities), § 15 (4) TrinkwV (German Ordinance on Drinking Water) 2001, ZLS (Central Authority of the Federal States for Safety) § 9 para. 6 German Ordinance on Dangerous Goods, right to inspect contaminated sites on real estate belonging to the German Federal States and according to the German Association for the Quality Assurance of Secondary Fuels
<b>Member of:</b>	Neues Unternehmertum Rheinland e. V. (Rheinland Association of New Business), Wuppertal division
<b>Website:</b>	www.bayerindustry.com



# Protecting the world's second largest tidal flat

**Jung-Ho Jung**  
South Korea

*Measuring over 400 square kilometers, Saemangeum in Korea is the second largest tidal flat in the world. Here, migratory birds hurtle past on their way from Asia to Australia, the area itself protects the inhabitants of the coastal region from storm surges and the silt acts as a natural filter, cleaning polluted water. The South Korean government is planning to dry up the tidal flat to use it for agricultural purposes. Jung-Ho Jung, a member of a non-governmental organization, is lobbying for the conservation of this valuable habitat: "We must preserve this natural area to maintain an ecological balance in the region and protect the population."*

*Photo: Jung-Ho Jung in front of the waste recycling unit in Leverkusen-Bürrig*



**Dr. Wolfgang Grosse Entrup, Head of Governmental Product Affairs at Bayer AG**

*Within our corporate values, we have entered into a sustainability commitment. To direct our contribution to sustainability, we require a performance management process. For this reason, we have created a clear organizational structure, developed a set of key performance indicators and defined sustainability targets. By way of annual reporting – through the present Report in particular, and also on the Internet – we strive to be transparent, both internally and externally. We will allow ourselves to be judged by the targets we have set ourselves.*

## Our Performance Indicators

**The data section details the performance indicators of the Bayer Group for health, safety and the environment (HSE), also covering employee and social issues, for the 2005 reporting period.**

In compiling this Report, Bayer is continuing its long tradition of reporting on its HSE performance indicators, which have been published annually since 2004 (the 2004 figures are available on the Internet). This time round, indicators relating to employees and social issues have also been included. We aligned the selection and measurement of these indicators to the international recommendations and guidelines of the Global Reporting Initiative (GRI), the World Business Council for Sustainable Development (WBCSD) and the European Chemical Industry Council (CEFIC).

The data capture was carried out in the areas of HSE, employees and social issues by means of a variety of processes and systems and in accordance with our own, internal directives. The HSE data were ascertained using the Group-wide site information system BaySIS® (see page 63). As in previous years, the data were compiled using an electronic questionnaire sent to all of the organizational units at the Bayer sites in which the Group held a participating interest of at least 51 percent during 2005. The performance data of these affiliated companies have been fully consolidated, irrespective of the precise size of Bayer's share in the relevant company. The data have been approved internally by the Head of Governmental & Product Affairs of Bayer AG. The data capture within BaySIS® includes all Bayer sites worldwide including research facilities, administrative sites and warehouses. In terms of reporting on employees and social issues, the global BayInfo System is the most important source. For the information on diversity in management the employee master data from the global SAP HR system were also evaluated. Training and continuing education costs were calculated by surveying all Group companies with more than 200 employees and extrapolating the result for the Group as a whole.

The auditing company Deloitte was commissioned by the Bayer Group to audit the quality and credibility of the data compilation (assurance process), a process carried out from March to May 2006. In addition to disclosure of the data compilation system, this audit also comprised interviews with representatives of various different parts of the Group. On a spot check basis, a further nine reporting objects spanning four continents were incorporated into the audit by way of interviews, on-site visits and telephone interviews. The Assurance Statement issued by Deloitte has been included on page 83 of this Report.

### Key changes in 2005

For the first time we are also publishing performance indicators for employees and social issues in 2005. These describe the areas in which we wish to improve over the coming years by setting ourselves targets. Our performance will then be measured against these targets. Lanxess, which ceased to be part of the Group at the start of 2005, is no longer included in the performance indicators for the Bayer Group in this data section. To illustrate the effect of the spin-off on HSE performance, the share of the figures applicable to Lanxess up to 2004 – where Lanxess figures were available – has been included and listed separately for 2004. The Roche sites that were acquired in 2004 were first included in full in the data capture for 2005. As the energy consumed by those sites constitutes significantly less than one percent of total energy consumption, they have not been listed separately in the figures.

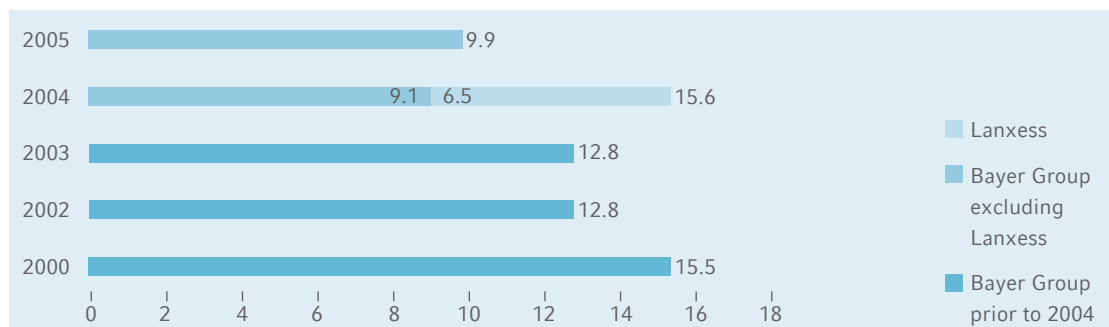


## Ecological indicators

When interpreting the progression over time it should be borne in mind that the development is dependent on various different influences. In addition to technical measures to reduce emissions, waste levels and consumption of resources, as well as fluctuating production volumes, structural changes also come into play. These include the purchase and sale of sites in full or in part and also the outsourcing of upstream services, as was the case in 2002, for example, with the construction of a gas turbine with waste heat boiler by the third-party operator Electrabel in Antwerp, Belgium.

The production volume of our continuing operations rose slightly in 2005 compared with 2004. Nevertheless, many of the indicators reported below for continuing operations have decreased. This indicates that in those instances, the specific emission or specific use of resources was further reduced.

### Volume of sold products (in million t/a)



Our aim is to achieve an appropriate and consistent level of health, safety, environment and quality (HSEQ) management throughout the Group. With this in mind, our established HSEQ management systems were further improved in 2005. These systems are subject to regular review as set out in a Group-wide Audit Directive, with the external certification of our management systems supplementing these internal audits.

Where it makes sense on location, we will also in future arrange for certification in accordance with the environmental management standard ISO 14001. The equivalent standard for health and safety management is OHSAS 18001 issued by the British Standards Institution (BSI). Some Bayer sites have already had their management systems certified in accordance with this standard.

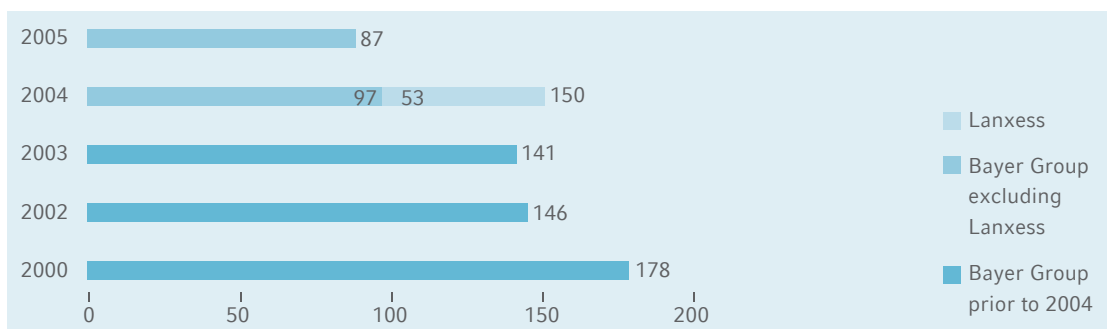
Bayer	2004*		2005	
	No. of ROs	No. of ROs as a proportion of production sites	No. of ROs	No. of ROs as a proportion of production sites
RO = Reporting Object				
Sites with a management system certified to ISO 14001	55	33%	58	35%
Sites with an environmental management system based on external standards**	63	38%	65	39%
Sites with a management system certified to OHSAS 18001	3	2%	8	5%

\* Bayer excluding Lanxess sites  
 \*\* "based on external standards" includes:  
 • Management systems certified to ISO 14001 or EMAS  
 • Systems and certifications based on national standards e.g. "Industria Limpia" [Clean Industry] in Mexico

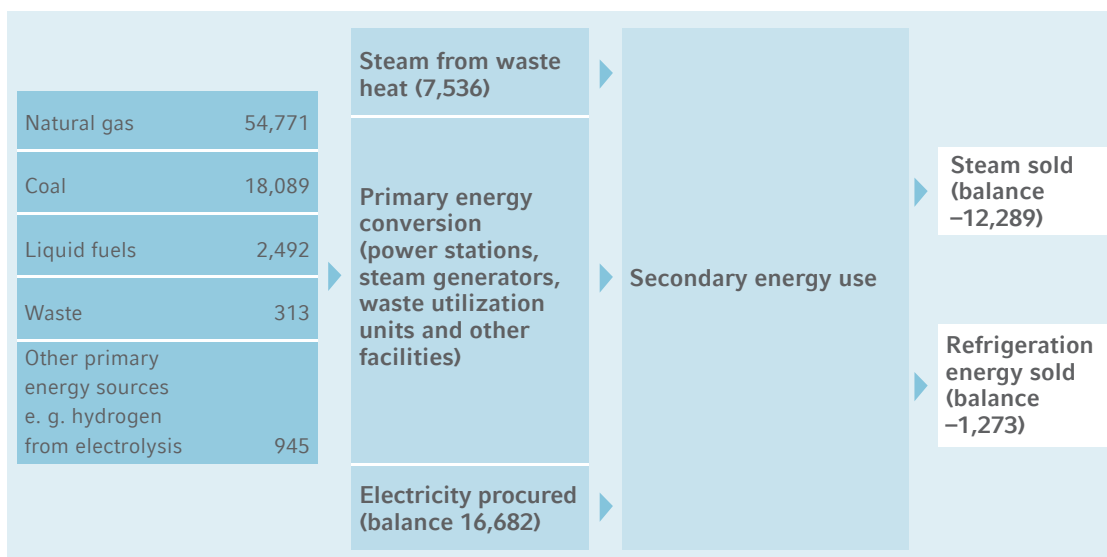
## Energy use

Despite the fact that production volumes remained almost constant, energy use by the Bayer Group fell by 16 percent between 2000 and 2004. In 2005 a reduction of approximately ten percent on the previous year was recorded – the share attributable to Lanxess has already been excluded from this figure. In terms of primary energy, natural gas and coal were the main sources, accounting for 71 and 24 percent respectively.

Energy use (in petajoule/a)



Energy balance sheet (in terajoule/a)

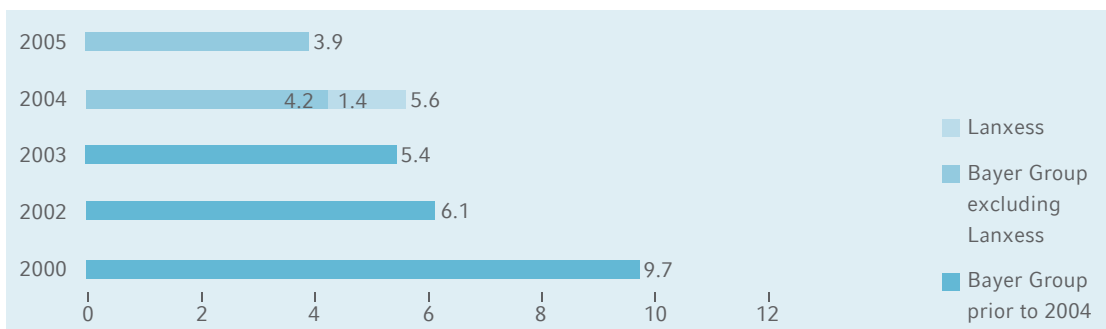


The total energy use of the Bayer Group of 87 petajoules (= 87,000 terajoules) is calculated from the sum of primary energy use, electricity procured and waste heat minus the amount of steam and refrigeration energy sold on balance.

## Direct greenhouse gas emissions

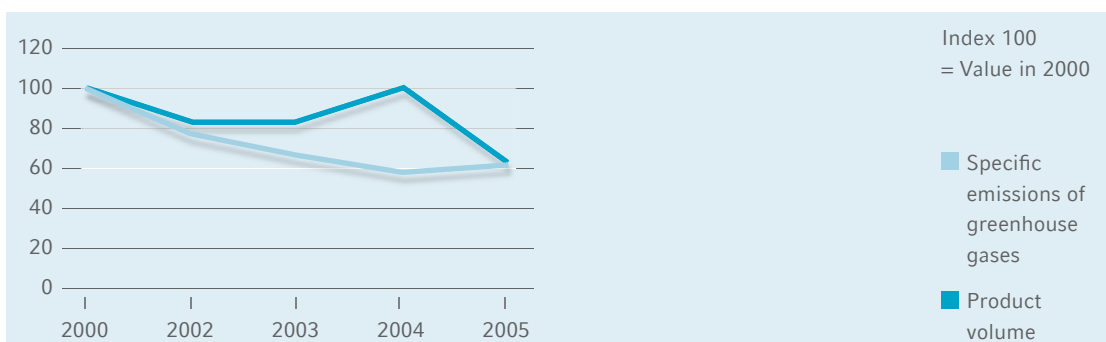
Direct emissions of greenhouse gases were seven percent lower than in the previous year across the Group as a whole (2004: 4.2 million metric tons, 2005: 3.9 million metric tons). This fall is primarily due to reduced energy consumption. Greenhouse gases include carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrogen monoxide (N<sub>2</sub>O), hydrofluorocarbons (HFC), perfluorocarbons (PFC) and sulfur hexafluoride (SF<sub>6</sub>). Using substance-specific equivalence factors, these emissions are converted to CO<sub>2</sub> equivalents. On this basis, 98.5 percent of greenhouse gas emissions in 2005 related to CO<sub>2</sub>, 1.4 percent to N<sub>2</sub>O and 0.1 percent to all other greenhouse gases. The greenhouse gas emissions are composed of emissions from power stations and from production and waste incineration plants in which the Bayer Group holds a participating interest of at least 51 percent.

**Emissions of greenhouse gases** (in million t CO<sub>2</sub> equivalents/a)



As well as aiming to minimize absolute CO<sub>2</sub> emissions, Bayer is also striving to achieve an ongoing reduction in specific greenhouse gas emissions in relation to production volumes, since these specific indicators relate to our reduction potential from improved efficiencies and technical innovations. The graph shows a continuous fall in specific emissions until the spin-off of Lanxess in January 2005. The departure of Lanxess led to a major reduction in production volumes and thus to a slight increase in the specific emissions of greenhouse gases.

**Specific greenhouse gas emissions/product volume** (total for Bayer Group)

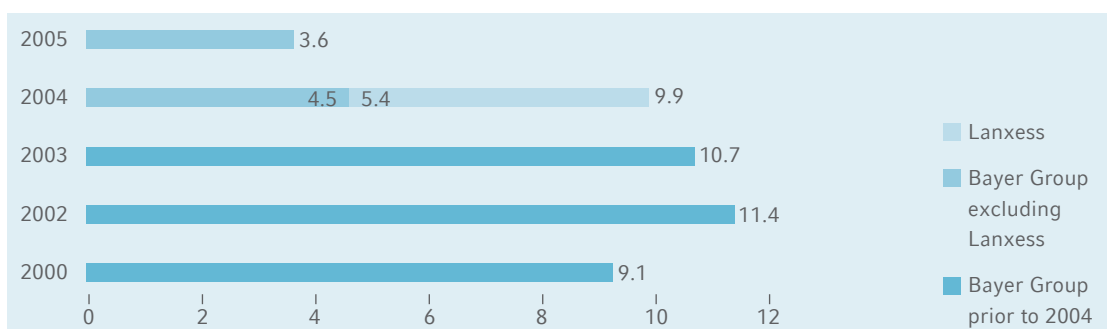


## Emissions of volatile organic compounds

Volatile organic compounds (VOC) are organic chemicals with a particular vapor pressure that contribute to the formation of smog and ground-level ozone.

Due to the acquisition of Aventis CropScience, there was a rise in VOC emissions by the Bayer Group from 9,100 metric tons in 2000 to 11,400 metric tons in 2002, after which time they fell consistently, reaching 9,900 metric tons in 2004. The 20 percent reduction for continuing operations compared with 2004 can be attributed to successful measures to improve waste air purification at the Vapi site in India. These are the first results of a comprehensive action plan to reduce VOC emissions, with further reductions set to follow.

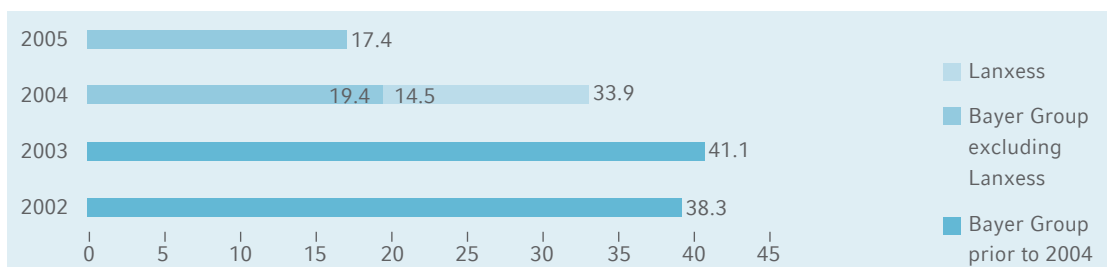
### VOC emissions (in 1,000 t/a)



## Ozone-depleting emissions

To be able to compare the damaging effect of substances on the ozone layer, each substance is assigned an ozone depletion potential and is expressed as a relative value (equivalent) in relation to the potential of the guide substance trichlorofluoromethane (CFC-11). The total for all substances with the potential to harm the ozone layer is then stated as the total of all CFC-11 equivalents. In 2005 this figure was ten percent lower than during the previous year.

### Emissions with ozone depletion potential (in t CFC-11 equivalents)



## Other air emissions

Other emissions primarily include sulfur dioxide (SO<sub>2</sub>) and nitrogen oxides (NO<sub>x</sub>), most of which originate from incineration processes. SO<sub>2</sub> and NO<sub>x</sub> are also emitted during some production processes. Particulates are released both from the combustion plants used for energy generation and during some production processes. Fluctuations in these emissions over time are due to such factors as changes in energy consumption.

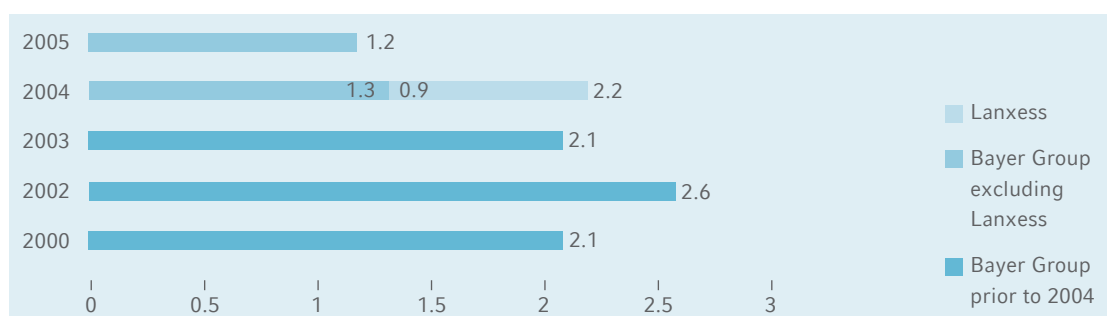
### Other air emissions (in 1,000 t/a)

	2000	2002	2003	2004			2005
				Bayer Group	Bayer Group excluding Lanxess	Lanxess	
CO	3.8	3.0	–	2.3	1.9	0.4	1.9
NO <sub>x</sub>	11.2	9.4	6.7	6.3	4.3	2.0	4.5
SO <sub>2</sub>	6.6	7.4	5.9	5.6	4.2	1.4	4.5
Particulates	1.9	0.8	0.9	0.8	0.5	0.3	0.3

## Water

Compared with the previous year, there was only a slight reduction in water use by the Bayer Group in 2005. Accounting for 0.8 million cubic meters (m<sup>3</sup>) per day, cooling water fed into production accounted for the highest share. Since this water is merely heated up and not affected in any other way when used in the Group, it can be discharged again without any further treatment. The sites take more than half of the water that they need from surface water, with around one third being drawn from underground sources (generally groundwater).

### Water use (in million m<sup>3</sup>/d)



### Water sources

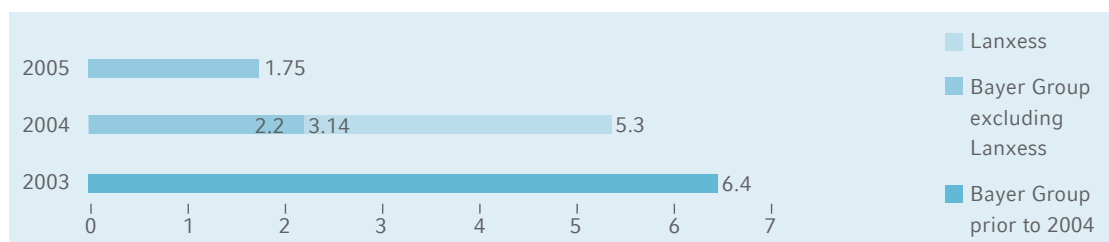
Bayer Group (excluding Lanxess)	2004	2005
Water use in million m <sup>3</sup> /d	1.3	1.2
of which from surface waters	60.0%	54.0%
of which from bore holes/springs	32.6%	34.5%
of which from public drinking water supply	4.9%	2.6%
of which from other sources (e.g. rainwater)	2.4%	8.8%

## Wastewater

The most important parameters used to record water pollution caused by Bayer are the total loads of phosphorus, nitrogen and organic compounds. The discharge of phosphates remained more or less constant for continuing operations in 2004 and 2005. The nitrogen load (nitrates and ammonium nitrogen), however, was 18 percent lower in 2005 than in the previous year.

Because it is easier to determine the level of organic compounds in wastewater as total organic carbon (TOC), since 2003 we have been using TOC as an indicator instead of chemical oxygen demand (COD). Last year, there was a renewed fall in the emission of organic compounds into wastewater. Similarly, there was a drop in wastewater pollution caused by heavy metals and inorganic salts.

### TOC emissions (in 1,000 t/a total organic carbon)



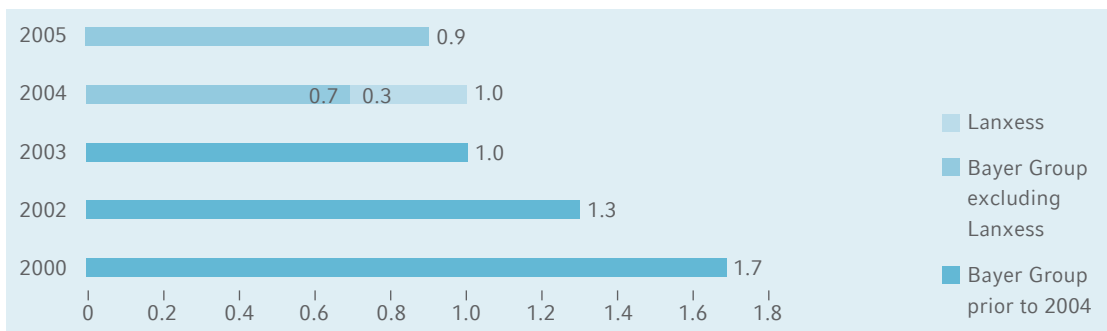
### Other emissions into water

	2000	2002	2003	2004			2005
				Bayer Group	Bayer Group excluding Lanxess	Lanxess	
Phosphorus, 1,000 t/a	0.8	0.6	0.6	0.83	0.76	0.07	0.75
Nitrogen, 1,000 t/a	3.4	3.4	3.2	2.8	0.9	1.9	0.7
Heavy metals, t/a	42.0	30.0	29.0	28.2	14.5	13.7	12.0
Inorganic salts, million t/a	2.0	1.5	1.6	–	1.0	(not recorded)	0.8

## Waste

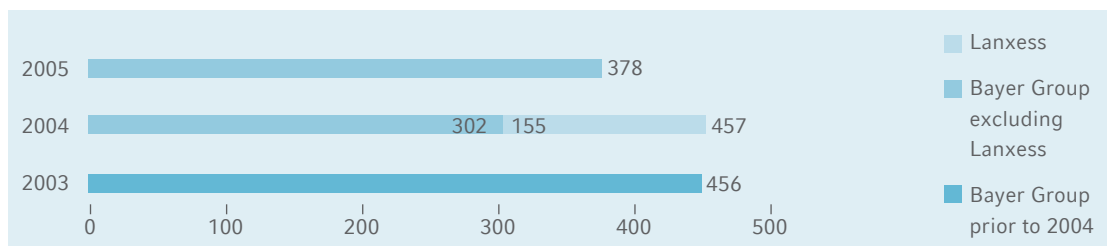
Through its ongoing work on the further development of its production processes and by using alternative raw materials, Bayer was able to substantially reduce the volume of waste produced in the 1990s. Data from the last few years appear to indicate that this potential has been almost fully tapped. The rise in the volume of waste produced in continuing operations in 2005 compared with 2004 can be attributed to closures and reconstruction work (building rubble and excavated soil).

### Total waste produced (in million t/a)



We have been recording the amount of “hazardous waste,” the definition of which varies from one country to another, since 2003. The data used for the Group in the Bayer balance sheet are calculated in line with the national definitions. In Germany, hazardous waste comprises items such as sludge from the company’s own wastewater treatment processes, and distillation and solvent residues. The rise from 2004 to 2005 can again be attributed to closures and reconstruction work.

### Generation of hazardous waste (in 1,000 t/a)



More than half of the hazardous waste was transferred to landfill sites in 2005, with the rest being reprocessed or incinerated. The rise on the previous year is due to the higher volume of waste from closures and reconstruction work.

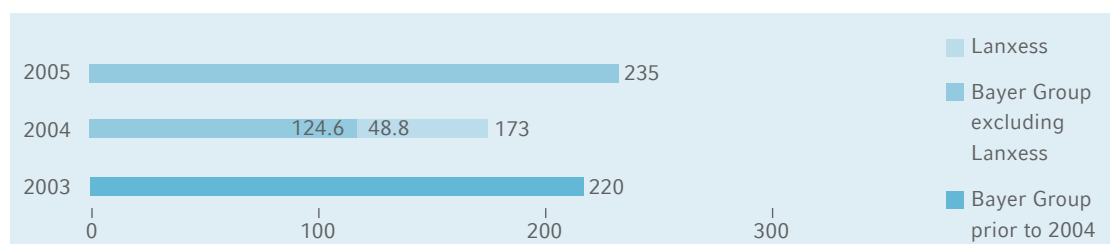
Bayer Group	2004**	2005
Total volume of waste disposed of*	680,000 t	950,000 t
of which sent to landfill	49%	54%
of which incinerated	29%	25%
of which recycled	21%	19%
of which not allocated to a form of disposal***	1%	2%

\* The volume of waste that is disposed of may deviate from the volume of waste generated due to differences in the recording periods for the occurrence and disposal of waste and differing water content in the case of sewage sludge.

\*\* Bayer Group excluding Lanxess

\*\*\* The form of disposal used for this waste could not be recorded in the data collected. Proper disposal is, however, safeguarded for this waste.

#### Landfilling of hazardous waste (in 1,000 t/a)





## Major environmental incidents

Up to and including the 2002 reporting year we reported on those incidents at production sites that needed to be reported to the authorities in accordance with local regulations. In 2002, for example, there were 53 such “reportable environmental incidents” and four cases of “incidents causing damage.” Since the 2003 reporting year we have categorized environmental incidents and incidents causing damage in line with their degree of severity as “major environmental incidents.” Due to the different definitions, comparisons with earlier years can only be made to a limited extent.

In 2005 the number of incidents included under this definition was down on the previous year – falling from six to two.

- On June 23, 2005 a small amount of chlorine was released from the Leverkusen site. The grounds of the Landesgartenschau, the regional garden show bordering the Leverkusen site, were evacuated as a precautionary measure.
- In Norwich (United Kingdom) polluted wastewater was released into the subsoil on September 9, 2005 due to a leak in a collecting tank. Ground monitoring has been established in order to determine the remediation necessary.

### Major environmental incidents

	2000	2001	2002	2003	2004*	2005
Reportable environmental incidents	69	47	53	–	–	–
Incidents causing damage	7	1	4	–	–	–
Major environmental incidents	–	–	–	21	6	2

\* Bayer Group excluding Lanxess sites

## Transportation incidents

Since the 2003 reporting year we have been recording transportation incidents on a Group-wide basis, including at warehouse sites. While it was previously the case that all incidents in which we were in possession of the transported goods were counted, the counting method was changed in 2005. The key factor now is whether Bayer has assumed financial responsibility for the transportation concerned. Given that, in the United States in particular, ownership of the sold goods generally passes to the customer as soon as the goods leave the Bayer site, the old definition, which focused upon possession of goods being transported, no longer appeared appropriate.

Additional criteria are the volume and risk potential of chemicals possibly released into the environment. Due to this new definition, the 2005 figures can only be compared against earlier figures to a very limited extent.

### Transportation incidents

	2000	2001	2002	2003	2004*	2005
Road	26	16	23	28	10	2
Rail	2	0	2	0	0	1
Internal waterway	2	1	0	0	0	0
Sea	2	0	0	0	0	0
Air	1	0	0	0	1	0
Pipeline	0	1	1	–	–	0
<b>Total</b>	<b>33</b>	<b>18</b>	<b>26</b>	<b>28</b>	<b>11</b>	<b>3</b>

\* Bayer Group excluding Lanxess sites

## Social indicators

### Employees

As at December 31, 2005 the Bayer Group employed 93,700 people worldwide. Adjusted to take account of the Lanxess spin-off, this equates to 2,000 more than at the start of the year. The average number of employees rose to approximately 93,000. Personnel expenses fell by 1.9 percent in 2005 to €5,912 million. This corresponds to 21.6 percent of sales. Value added per employee rose to €102,487.

#### Employees by region and subgroup<sup>1</sup>

Employees by region	2004	2005
Europe	51,400	52,400
North America	17,800	16,200
Asia Pacific	12,200	13,900
Latin America/Africa/Middle East	10,300	11,200
Bayer Group	91,700	93,700

Employees by subgroup/service company	2004	2005
Bayer HealthCare	32,100	33,800
Bayer CropScience	19,400	18,800
Bayer MaterialScience	17,900	18,800
Bayer Business Services <sup>2</sup>	8,400	8,800
Bayer Technology Services	2,100	2,100
Bayer Industry Services <sup>3</sup>	11,300	10,900
Bayer Corporate Center	500	500
Bayer Group	91,700	93,700

<sup>1</sup> excluding Lanxess and plasma business

<sup>2</sup> incl. Local Services and trainee pool

<sup>3</sup> incl. trainees

#### Diversity in management (2005)

Percentage of senior managerial* positions held by women in the Bayer Group	3.9%
Nationalities in senior management at the Bayer Group	17

\* All positions in the Group Leadership Circle are classed as senior managerial positions. This equates to approx. 330 employees in the Bayer Group. The Group Leadership Circle consists of managers in the holding company, subgroups and service companies whose functions are particularly important for the Bayer Group as a whole.

#### Further training and continuing education (2005)

Further training and continuing education costs as a percentage of personnel costs	2.3%
--	------

Personnel expenditure in 2005 amounted to €5.9 billion. With 2.3 percent of this total being devoted to further training and continuing education measures, approximately €140 million was spent on long-term staff development, which equates to approximately €1,500 for each individual.

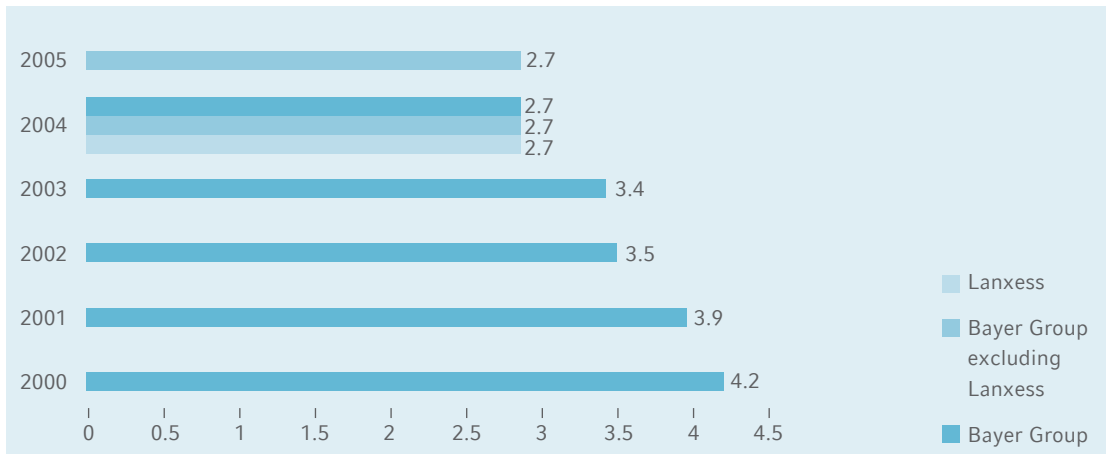
## Occupational injuries

A key indicator here is the number of injuries with days lost. In 2005, the quota for such injuries was unchanged on the previous year at 2.7 injuries for every million hours worked. Also included in these statistics are injuries affecting staff on fixed-term contracts, part-time staff and contractors who report directly to Bayer line managers.

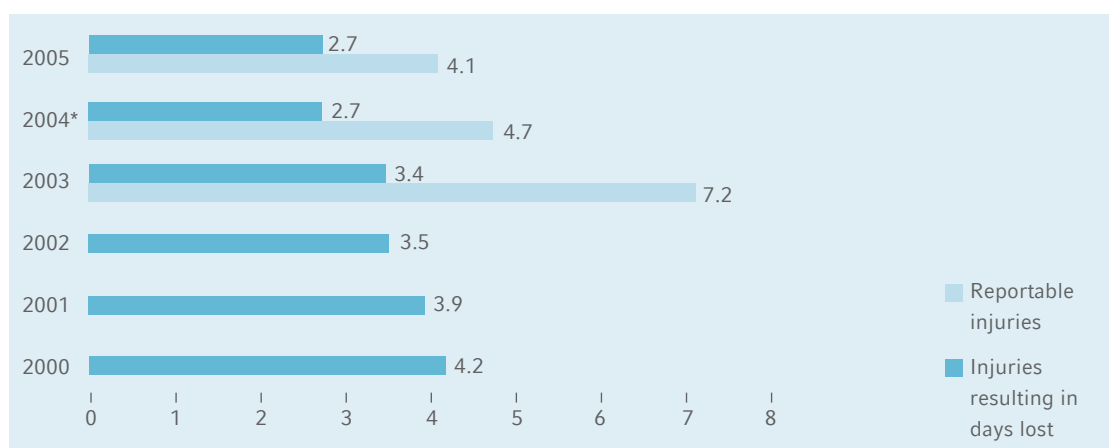
Reportable injuries include all injuries that require medical treatment that extends beyond First Aid. All injuries are counted, whether they give rise to days lost or not. This means that these injuries include both less serious injuries and injuries that do give rise to days lost (these usually being more severe injuries). This figure, which has been recorded at all sites since 2003, was 4.1 in 2005 (2004: 4.7).

There was a clear increase in the number of working hours of contractors at Bayer Group sites during 2005, primarily due to the building work at the Caojing site in China. The number of occupational injuries affecting contractors was nevertheless more or less the same as in the previous year. The data provide information on occupational injuries affecting employees from external companies that are not directly responsible to Bayer staff. Injuries in this case are only counted if they result in at least one day's absence from work.

### Occupational injuries suffered by Bayer employees and resulting in absence from work (injuries for every million hours worked)

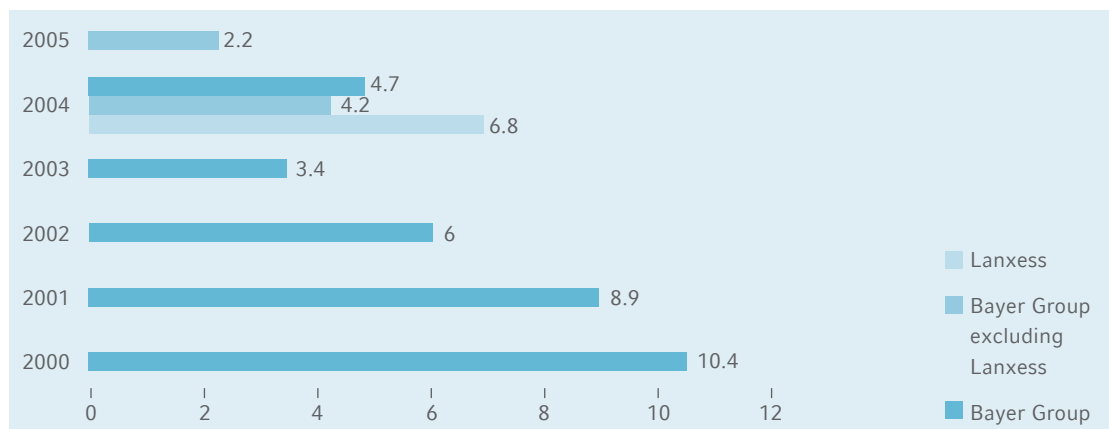


### Occupational injuries suffered by Bayer employees requiring medical treatment (reportable injuries, injuries for every million hours worked)



\* excluding Lanxess

### Occupational injuries resulting in days lost suffered by contractors (injuries for every million hours worked)



## Fatal occupational injuries

There were four cases of fatal work-related injuries at Bayer in 2005, resulting in the deaths of three Bayer employees and one employee from an external company. Two sales employees were killed in a traffic accident in Turkey, one employee died in an accident involving a lathe in Dormagen, and in Baytown (Texas, United States) an employee of one of our contractors died as a result of phenol poisoning.

	2001	2002	2003	2004	2005*
<b>Fatal occupational injuries</b>	<b>3</b>	<b>1</b>	<b>2</b>	<b>7</b>	<b>4</b>
Bayer employees	2	0	1	5**	3
Contractors' employees	1	1	1	2**	1

\* Bayer excluding Lanxess

\*\* including one injury at Lanxess

## Economic indicators

### Value added

The categories of value added indicate how the various stakeholders and Bayer itself participate in the Group's economic success. The total operating performance of the Bayer Group rose by 18.2 percent in 2005 to €28.8 billion. Value added was up 18.9 percent to €9.6 billion, primarily due to the gratifying development of net sales, which rose significantly on the previous year, up 17.6 percent to €27.4 billion. This value added can be broken down as follows: stockholders 7.2 percent (2004: 4.3 percent), employees 61.6 percent (2004: 78.8 percent) and governments 9.3 percent (2004: 6.7 percent). The remainder was retained by the company.

	2005	Change
Source	€ million	%
Net sales	27,383	+ 17.6
Other income	1,390	+ 30.0
Total operating performance	28,773	+ 18.2
Cost of materials	9,726	+ 9.6
Depreciation	1,835	- 6.3
Other expenses	7,609	+ 39.9
<b>Value added</b>	<b>9,603</b>	<b>+ 18.9</b>

	2005	Share
Distribution	€ million	%
Stockholders	694	7.2
Employees	5,912	61.6
Governments	889	9.3
Lenders	913	9.5
Earnings retention	1,195	12.4
<b>Value added</b>	<b>9,603</b>	<b>100.0</b>

### Income taxes

Included under income taxes are those paid or accrued in the individual countries, plus deferred taxes.

#### Income taxes of the Bayer Group (in € million)

	2004	2005
Income taxes paid or accrued	(490)	(541)
Deferred taxes	17	(100)
<b>Income taxes</b>	<b>(473)</b>	<b>(641)</b>

## Net sales by subgroup and segment

In 2005 Bayer increased sales by a substantial €4.1 billion to €27.4 billion (+17.6 percent). While there was a slight drop in sales at Bayer CropScience (−0.8 percent), Bayer HealthCare and Bayer MaterialScience recorded an increase in sales (+17.0 percent and +24.4 percent respectively). The Consumer Care and Materials segments made the biggest contributions (+76.3 percent and +25.8 percent respectively). Crop Protection, our second-most important source of sales revenue, recorded the biggest fall, at −1.7 percent.

### Net sales by subgroup and segment

	2004	2004 share of Group	2005	2005 share of Group
€ million		%		%
<b>HealthCare</b>	<b>8,058</b>	<b>35</b>	<b>9,429</b>	<b>34</b>
Pharmaceuticals, Biological Products	3,961	17	4,067	15
Consumer Care	1,336	6	2,355	8
Diabetes Care, Diagnostics	1,975	9	2,151	8
Animal Health	786	3	856	3
<b>CropScience</b>	<b>5,946</b>	<b>25</b>	<b>5,896</b>	<b>22</b>
Crop Protection	4,957	21	4,874	18
Environmental Science, BioScience	989	4	1,022	4
<b>MaterialScience</b>	<b>8,597</b>	<b>37</b>	<b>10,695</b>	<b>39</b>
Materials	3,248	14	4,086	15
Systems	5,349	23	6,609	24
Reconciliation	677	3	1,363	5
<b>Group</b>	<b>23,278</b>	<b>100</b>	<b>27,383</b>	<b>100</b>
	<b>Continuing operations</b>			

In 2005 the Bayer Group spent €1,886 million on research and development (the 2004 figure excluding Lanxess was €1,927 million). This money was spent on improving our product portfolio and production processes and on developing new products.

### Research and development expenses (in € million)

	2004	2005
<b>Total</b>	<b>1,927</b>	<b>1,886</b>
of which Bayer HealthCare	996	954
of which Bayer CropScience	679	664
of which Bayer MaterialScience	236	251
Lanxess	–	–
of which reconciliation	16	17

## ASSURANCE



# Independent Assurance Statement to Bayer AG Group Management

### Introduction

We have reviewed Bayer Group Annual HSE Performance Data Collection Procedures and certain HR data collection procedures for the reporting period 2005 as described in the Bayer Sustainable Development 2005 (the 'Report'). These subject matters are the responsibility of the Bayer AG Group Management, with whom the objective and terms of the engagement were agreed. We are responsible for expressing our conclusions based on the engagement.

We have based our approach on emerging best practice for independent assurance of Sustainability reporting, including ISAE 3000 ("Assurance Engagements other than Audits or Reviews of Historical Financial Information"), issued by the International Auditing and Assurance Standards Board (IAASB).

### Subject matter

The following subject matters were reviewed:

1. The procedures and practices, as described in 'Our Performance Indicators' (page 68), for the annual collection, compilation and validation of 2005 data from reporting objects on Health, Safety, and Environment (HSE) data.
2. The procedures and practices, as described in 'Our Performance Indicators' (page 68), for the annual collection, compilation and validation of the following HR data:
  - a. Group Leadership Circle: total number, gender, nationality
  - b. Training and development cost
  - c. Total number of employees
3. The presentation of the above-mentioned data in the Sustainable Development Report (pages 69 to 88) in accordance with criteria described in 'Our Performance Indicators'.
4. The implementation of the above subject matter 1 at nine reporting objects selected by us in consultation with Bayer AG: We visited Bayer Industry Services Leverkusen (Germany), Bayer HealthCare Elberfeld (Germany), Bayer HealthCare Berkeley (United States), Bayer MaterialScience Belford Roxo (Brazil), Bayer CropScience Belford Roxo (Brazil), and we engaged by phone and other means of communication with: Bayer MaterialScience Bomlitz (Germany), Bayer MaterialScience Map Tha Phut (Thailand), Bayer CropScience Hangzhou (China), Bayer HealthCare Milan (Italy).

### Procedures

Our objective was to achieve limited assurance. Based on an assessment of materiality and risk, we have gathered and evaluated evidence supporting the conformity with criteria for the subject matters described. This work included analytical procedures and interviews with management representatives and employees at Bayer AG Group headquarters in Leverkusen and, with respect to the HSE data procedures, at the nine reporting objects mentioned above. These were performed on a sample basis, as we deemed necessary in the circumstance, but no substantial testing was undertaken. Therefore, the assurance that we obtained from our evidence-gathering procedures is limited. We believe that our work provides an appropriate basis for our conclusion.

### Conclusions

In conclusion, in all material respects, nothing has come to our attention that causes us not to believe that:

- Bayer AG at Group level has applied detailed and systematic procedures for the purpose of collecting, compiling and validating 2005 HSE performance data from reporting objects, as specified.
- Bayer AG at Group level has applied detailed and systematic procedures for the purpose of collecting, compiling and validating certain HR data, as specified.
- The HSE performance data (pages 69–77 and 79–80 of the Report) and the HR data (page 78 of the Report) mentioned above have been appropriately presented in the Report in accordance with principles stated in 'Our Performance Indicators'.
- The nine reporting objects mentioned above have implemented the Group requirements to appropriately prepare and report to Bayer AG at Group level the requested performance data for HSE 2005.

Copenhagen, June 12, 2006

Deloitte

Statsautoriseret Revisionsaktieselskab

Preben J. Soerensen

State Authorized Public Accountant

Environment & Sustainability Services

# Sustainability Program for 2006 onwards

Our Sustainability Program is based around the key areas of innovation, product stewardship, excellence in corporate management, social responsibility and responsibility for the environment. Within each of these areas of action, specific measures are assigned to each objective to ensure that it is achieved by the deadline. The objectives of all the subgroups and service companies have been incorporated into the Group Sustainability Program.

[www](#)

34 Implementation of objectives from previous years

## Our objectives by 2010 (unless indicated otherwise)

Objective	Measure
<b>Area of action: Innovation</b>	
Promotion of a culture of innovation so that creative ideas and input from all employees can become utilizable for the Group.	Long-term, Group-wide innovation initiative: Implementation of the "Triple-i" program (Inspiration, Ideas and Innovations).
Promotion of research projects on protecting drinking water and freshwater.	Provision of funding and participation in project management for the National Geographic Global Exploration Fund set up by Bayer and National Geographic; in 2006/2007 initiation of socially relevant and innovative projects by external research groups on the new recovery, conservation and fair distribution of water resources.
Contribution to safeguarding the food supply of a growing world population.	Further development of plant biotechnology; development of plants with improved stress tolerance of dry conditions and creation of health-promoting types of canola.
Tapping potential of renewable resources.	Research work and technological developments for promising applications.
Selective, resource-optimized production of pharmaceutical active ingredients.	Creation and preparation of therapeutic proteins from plants (plant-made pharmaceuticals).
Provision of improved anticancer drugs.	Extension of indications of the anticancer drug Nexavar® to include liver, skin and lung cancer.
Provision of a drug to combat dangerous circulatory disorders.	Provision of thrombosis prophylaxis in the form of the oral Factor XA inhibitor (BAY 59-7939).



Extension of the duration of efficacy of Kogenate®, a drug recombinant to treat hemophilia.	New formulation based on liposome technology.
Energy conservation by reducing the weight in vehicles using polymer materials, e.g. for windows and structural parts.	Pilot projects with selected car makers and suppliers, for example for roof modules.
Preservation of vital resources by developing innovative polyurethane systems.	Ensuring the availability and high quality of water through the use of innovative and high-quality polyurethane systems for the simple, economical and time-saving rehabilitation of drinking water pipes.
Energy conservation in production processes.	Optimization of a production process for monomeric MDI (MDI = methylene diisocyanate, a raw material used to make polyurethane) for a new large-scale plant in China with a target energy saving of approx. 15 percent.

#### Area of action: Product stewardship

Ongoing work to secure substance information and its availability for all of our products.	Continuous updating of data records for own production > 1 metric ton, in line with changes to the product portfolio.
Implementation of the objective formulated at Johannesburg on the globally harmonized classification and labeling of substances and preparations.	Support of political interpretation and implementation in conjunction with other relevant regulations (GHS = globally harmonized system).
Improvement in biological effectiveness of crop protection products, coupled with a favorable environmental and health profile.	Management and further development of the Bayer CropScience product portfolio.
Permanent ongoing safeguarding of compliance with regulations on drug safety and quality assurance with regard to human drugs.	Implementation and monitoring of the policy on detailed information obligations, procedures and contact partners for drug safety and quality assurance.

#### Area of action: Excellence in corporate management

Employment: Ongoing improvement of internal work processes and employee motivation.	Continuation of regular worldwide satisfaction analysis of managerial staff; implementation of global leadership principles coupled with performance assessment, utilization of the experience gained from pilot studies in Italy.
Management of process to implement the Directive on Health, Safety, Environment and Quality (HSEQ) Audits.	Implementation of subgroup-specific HSEQ management systems and complete auditing of these in all regions.

Improvement of communication within the global Bayer organization.	Full implementation of English as Group working language among managers including through the introduction of broadly based training programs.
Improvement of performance of all managers.	Further extension of 360° Feedback processes to include employees with managerial responsibility.

### Area of action: Social responsibility

Worldwide promotion of environmental knowledge among young people.	Expansion of cooperation with the United Nations Environment Programme (UNEP), including strengthening of youth environmental networks and capacity building programs in Latin America and Africa.
Strengthening of basic understanding of natural science in schools.	Establishment in Japan of the “Making Science Make Sense” program founded in the United States and already applied in the United Kingdom and Ireland.
Promotion of access to school and vocational education for children and young people, particularly in newly industrializing and developing nations.	Cooperation with regional organizations, initiating own programs to protect and educate young people. Raising of awareness in relevant locations, such as India.
Promotion of education in sustainable development and improvement of environmental awareness in newly industrializing countries (capacity building) in line with voluntary undertaking by the chemical industry based on the Johannesburg Declaration and the ICCM (SAICM).	Development of a training program and financial and HR support for the establishment of a chair in sustainable development at Tongji University in Shanghai, China.
Support for education, science and research.	Reorganization of Bayer foundations focusing more strongly on promoting knowledge and increasing the budget.
Investigation whether the duration of treatment for tuberculosis can be reduced by around half by using the active substance moxifloxacin.	Bayer is collaborating with the Global TB Alliance to supply the active substance moxifloxacin free of charge for a global study program. If the trials are successful, the intention is to have moxifloxacin approved for the indication TB and to make it available to patients in developing countries at affordable prices.
Responsible approach to genetic engineering.	Implementation of new Bayer policy on genetic engineering and specific regulations in the subgroups and service companies.
Occupational safety: Reduction in number of occupational injuries with lost days per 1 million hours worked (MAQ < 2).	Continuation of our consistent safety management approach.

<p>Diversity: Consistent implementation of our corporate values in the area of equal opportunities for all regardless of gender, nationality, color, religion, sexual persuasion or age.</p>	<p>Consistent implementation of Group-wide Program for Legal Compliance and Corporate Responsibility of May 2004; full implementation of a globally harmonized compensation system for Group Leadership Circles 1 to 3.</p>
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**Area of action: Responsibility for the environment**

<p>Water emissions: Ten percent reduction in discharge of TOCs and nitrogen into receiving waters per metric ton of sales product.</p>	<p>For competition reasons we do not publicize our measures in this area.</p>
<p>Air emissions: 30 percent reduction in VOC emissions per metric ton of sales product.</p>	
<p>Air emissions: Further ongoing optimization of energy efficiency in our production plants with the goal of reducing emissions of greenhouse gases by ten percent per metric ton of sales product (by 2015)</p>	
<p>Air emissions: Compliance with a maximum limit for ODS emissions (Ozone Depleting Substances) of less than 20 metric tons per year (CFC 11 equivalents).</p>	
<p>Waste: Reduction in the volume of hazardous production waste to less than 2.5 percent per metric ton of sales product.</p>	
<p>Energy consumption: Ten percent reduction in specific energy consumption per metric ton of sold product by 2015.</p>	

## Systems that enable Bayer to support the implementation of the Global Compact

Through our support for the United Nations Global Compact, our goal is to set higher standards in human rights, labor rights and environmental protection. The following table shows which policies, programs and management systems already introduced by Bayer support the ten principles of the Global Compact. Further information on the Global Compact can be found at [www.unglobalcompact.org](http://www.unglobalcompact.org)

Principles	Bayer systems
<b>Principle 1</b>	
Support for human rights	Social charter (p. 47) Procurement Community Policy (p. 17)
<b>Principle 2</b>	
Exclusion of any abuses of human rights	Supplier Relationship Management System (p. 17)
<b>Principle 3</b>	
Upholding of freedom of association	Group Works Council (p. 47) Bayer European Forum (p. 47)
<b>Principle 4</b>	
Abolition of all forms of forced labor	Supplier Relationship Management System (p. 17)
<b>Principle 5</b>	
Abolition of child labor	Supplier Relationship Management System (p. 17, 51)
<b>Principle 6</b>	
Elimination of discrimination	Bayer Diversity Advisory Council (p. 45) Working Group on Promotion of Equal Opportunities (p. 45)
<b>Principle 7</b>	
Precautionary approach to environmental challenges	Bayer Eco-Check (p. 34) HSEQ management systems (p. 16)
<b>Principle 8</b>	
Specific commitment to environmental protection	Group Sustainability Program (p. 84 et seq.)
<b>Principle 9</b>	
Development and diffusion of environmentally friendly technologies	Environmentally oriented system solutions and process optimization by Bayer Technology Services (p. 64)
<b>Principle 10</b>	
Anti-corruption measures	Code of conduct (p. 13, 30)

# Masthead

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Most of the product names cited are registered trademarks.

June 2006

## Forward-Looking Statements

This Sustainable Development Report contains forward-looking statements. These statements use words like “believes”, “assumes”, “expects” or similar formulations. Various known and unknown risks, uncertainties and other factors could lead to material differences between the actual future results, financial situation, development or performance of our company and those either expressed or implied by these statements. These factors include, among other things:

- Downturns in the business cycle of the industries in which we compete;
- new regulations, or changes to existing regulations, that increase our operating costs or otherwise reduce our profitability;
- increases in the price of our raw materials, especially if we are unable to pass these costs along to customers;
- loss or reduction of patent protection for our products;
- liabilities, especially those incurred as a result of environmental laws or product liability litigation;
- fluctuation in international currency exchange rates as well as changes in the general economic climate; and
- other factors identified in this Sustainable Development Report.

These factors include those discussed in our public reports filed with the Frankfurt Stock Exchange and with the U.S. Securities and Exchange Commission (including Form 20-F). In view of these uncertainties, we caution readers not to place undue reliance on these forward-looking statements. We assume no liability whatsoever to update these forward-looking statements or to conform them to future events or developments.

## Important Information

“This is neither an offer to purchase nor a solicitation of an offer to sell shares or American depository shares of Schering AG. The terms and conditions of the offer have been published in the offer document after the permission of the German Federal Financial Supervisory Authority (Bundesanstalt für Finanzdienstleistungsaufsicht, BaFin) has been obtained on April 12, 2006. DRITTE BV GMBH also has filed a tender offer statement with the U.S. Securities Exchange Commission (SEC) with respect to the takeover offer. Investors and holders of shares and American depository shares of Schering AG are strongly advised to read the German offer document or the U.S. tender offer statement and other relevant documents regarding the takeover offer filed by DRITTE BV GMBH with the SEC because they contain important information. Investors and holders of shares and American depository shares of Schering AG will be able to receive these documents free of charge at the SEC’s web site ([HTTP://WWW.SEC.GOV](http://www.sec.gov)), or at the web site [HTTP://WWW.BAYER.COM](http://www.bayer.com).

This is not an offer of Bayer AG’s securities for sale in the United States. No such securities have been registered under the U.S. Securities Act of 1933, as amended, and no such securities may be offered or sold in the United States absent registration or an exemption from registration. Any public offering of securities to be made in the United States must be made by means of a prospectus that contains detailed information about the issuer, its management and its financial statements.

Bayer AG has been granted exemptive relief from the provisions of Rule 14E-5 under the U.S. Securities Exchange Act of 1934, as amended, permitting it (or DRITTE BV GMBH or certain of its other affiliates or financial institutions on its behalf) to make purchases of shares of Schering AG outside of the takeover offer until the end of the offer period, subject to certain conditions. Accordingly, to the extent permissible under applicable securities laws and in accordance with normal German market practice, Bayer AG, DRITTE BV GMBH or its nominees or its brokers (acting as agents) may from time to time make certain purchases of, or arrangements to purchase, shares of Schering AG outside the United States, other than pursuant to the offer, before or during the period in which the offer is open for acceptance. These purchases may occur either in the open market at prevailing prices or in private transactions at negotiated prices. Any information about such purchases will be disclosed as required by applicable securities laws.

This Report contains forward-looking statements based on current assumptions and forecasts made by Bayer Group management. Various known and unknown risks, uncertainties and other factors could lead to material differences between the actual future results, financial situation, development or performance of the company and the estimates given here. These factors include those discussed in our annual and interim reports to the Frankfurt Stock Exchange and in our reports filed with the U.S. Securities and Exchange Commission.

# Index according to GRI (Global Reporting Initiative)

GRI Report content (key indicators)		Page
1.1	Vision and strategy	1, 21
1.2	Statement from the CEO	4/5
<b>Organizational profile</b>		
2.1	Name of the company	front flap
2.2	Major products and services	front flap
2.3	Operational structure	front flap
2.4	Description of major divisions	front flap
2.5	Countries in which the organization's operations are located	AR 26/27
2.6	Nature of ownership	26
2.7	Nature of markets served	AR 26/27*
2.8	Scale of the reporting organization	front flap, 78, 81
2.9	List of stakeholders	18
2.10	Contact person for the report	89
2.11	Reporting period	front flap
2.12	Date of most recent previous report	June 2004
2.13	Boundaries of report	front flap
2.14	Significant changes	68
2.15	Basis for reporting on joint ventures, subsidiaries etc.	AR 113/114*
2.16	Explanation of the nature and effect of any restatements of information	front flap, 68
2.17	Decisions not to apply GRI principles in the preparation of this report	not applicable
2.18	Criteria used in costs and benefits	21, 22 AR 165/166*
2.19	Significant changes in measurement methods	no change
2.20	Accuracy and reliability of the report	front flap
2.21	External verification of the report	83
2.22	Access to additional information	entire document
<b>Governance structure and management system</b>		
3.1	Governance structure, including responsibility for sustainability	15, 22
3.2	Independence of the Supervisory Board	14
3.3	Expertise of the Executive Board in terms of sustainability issues	15
3.4	Board-level processes for overseeing environmental, economic and social risks and opportunities	15*
3.5	Linkage between executive compensation and achievement of sustainability goals	no data
3.6	Organizational structure for achieving sustainability goals	15/16
3.7	Corporate mission and values	1, 12/13
3.8	Mechanisms for shareholders to provide recommendations to management	no data
3.9	Basis for identification of major stakeholders	18/19*
3.10	Consideration of stakeholder interest	18/19, 47*
3.11	Type of information generated by stakeholder consultations	27–29, 39, 50, 56*
3.12	Use of information resulting from stakeholder engagements	19*
3.13	Implementation of the precautionary principle	28, 36, 62, 84–87
3.14	External initiatives that the organization endorses	19, 38, 49–51, 62
3.15	Principal memberships in industry and business associations	55, 58, 61, 63–65
3.16	Management of upstream and downstream impacts (e.g. supply chain management)	16/17, 28, 34/35
3.17	Management of indirect impacts	40*
3.18	Changes in respect of locations or operations	front flap, 68
3.19	Sustainability programs and procedures	84–87
3.20	Status of certification pertaining sustainability management systems	55, 58, 61, 64/65, 69
<b>Economic performance indicators</b>		
EC1	Net revenue	front flap
EC2	Geographic breakdown of markets	hardly ascertainable
EC3	Costs of all goods, materials and services purchased	AR 122*
EC4	Contracts paid on-time in percent	no data
EC5	Total payroll and benefits	44, 46*
EC6	Distributions to providers of capital	81
EC7	Changes in retained earnings	front flap
EC8	Total sum of taxes broken down by country	81*
EC9	State subsidies/grants received broken down by country	no data
EC10	Donations to community and civil society groups	48/49
<b>Environmental performance indicators</b>		
EN1	Total materials use other than water, by type	16, 39, 71*
EN2	Percentage of materials used that are wastes	40, 76
EN3	Direct energy use (broken down by primary source)	70
EN4	Indirect energy use	70
EN5	Total water use	73
EN6	Land used in biodiversity-rich habitats	no data
EN7	Major impacts on biodiversity	no data
EN8	Greenhouse gas emissions	71
EN9	Ozone-depleting substances	72
EN10	NOx, SOx, and other significant air emissions	73
EN11	Waste volume by type and method of disposal	75/76
EN12	Significant discharges to water by type	74
EN13	Significant spills or releases of hazardous substances	77
EN14	Environmental impact of products/services supplied	29, 34–36, 58, 60, 62
EN15	Recycling of products	no data
EN16	Fines for non-compliance with environmental regulations	no data
<b>Social performance indicators: Employment conditions</b>		
LA1	Breakdown of workforce by region	78
LA2	Workforce fluctuation and job creation by country/region	44, 78*
LA3	Percentage of employees represented by trade unions or covered by collective bargaining agreements	47*
LA4	Involvement of employees in organizational decisions	47
LA5	Documentation of occupational accidents and diseases (ILO code)	79/80
LA6	Formal health and safety committees	16, 41
LA7	Injuries, absentee rates and work-related fatalities	79/80
LA8	Policies or programs on HIV/AIDS	49*
LA9	Training hours by employee category	47, 78*
LA10	Principles and policies on equal opportunity	45/46
LA11	Composition of senior management (gender/culture)	78, AR 8/9*
<b>Social performance indicators: Human rights</b>		
HR1	Principles and policies to monitor human rights	17, 51, 63
HR2	Consideration pertaining to investments/procurement	17, 51, 63
HR3	Principles/policies with respect to the supply chain	17, 51, 63
HR4	Principles and policies to prevent discrimination	45, 47
HR5	Description of freedom of association policy	47
HR6	Principles/measures to exclude child labor	51
HR7	Principles/measures to prevent forced labor	17*
<b>Social performance indicators: Society</b>		
SO1	Policy to manage impacts on communities in areas affected by activities	no data
SO2	Principles/measures to prevent corruption	13, 30/31
SO3	Principles/measures for managing political lobbying & contributions	30
<b>Social performance indicators: Responsibility for products and services</b>		
PR1	Health and safety of customers	34–36, 54/55, 58/59
PR2	Principles/measures related to product information and labeling	34
PR3	Principles/measures related to the protection of customer data	no data

**Q2 2006 Interim Report**  
 Tuesday, August 1, 2006\*

**Q3 2006 Interim Report**  
 Tuesday, October 31, 2006\*

**Annual Stockholders' Meeting 2007**  
 Friday, April 27, 2007

**Payment of Dividend**  
 Monday, April 30, 2007

*\* In the event of the successful acquisition of Schering AG, publication of the Q2 and Q3 2006 interim reports will be deferred to later dates, which will be posted on the Internet at [WWW.INVESTOR.BAYER.COM](http://WWW.INVESTOR.BAYER.COM).*

**Global commitment to the environment, education, sports and health**

Social responsibility and sustainability are integral to Bayer's corporate policy. The company puts this commitment into practice through numerous initiatives around the world. Below you will find a selection of logos for our various activities. Information on the sustainability indices which list Bayer is given on page 31 of this Report.

Upper row from left: Bayer has a long tradition of commitment to the concept of Responsible Care. Since 1997 the company has been a member of the World Business Council for Sustainable Development, and was a founding member of the "econsense" forum for sustainable development of German business and the United Nations Global Compact initiative.

Middle row from left: Since 2004 Bayer has been an organizational stakeholder of the Global Reporting Initiative (GRI). Bayer has recently intensified its partnership with UNEP. Bayer is also the first non-U.S. company to partner National Geographic in a scientific cooperation project to protect drinking water.

Lower row from left: Bayer supports the Brazilian Abrinq Foundation to exclude child labor and plays an active role in the Global Business Coalition on HIV/AIDS. It also cooperates with the Global Alliance for TB Drug Development and is an official partner of the "Germany - Land of Ideas" initiative.



World Business Council for Sustainable Development

**econsense**  
 Forum for Sustainable Development of German Business



THE GLOBAL COMPACT





Rahima Indira Hanifa,  
Indonesia, in front of Group  
headquarters in Leverkusen

**“Controlled landfill to  
protect humans and the  
environment”**

*In 2005 a huge garbage dump in the City of Bandung in West Java crashed down like an avalanche, killing many people with it. The accident was the result of a huge population explosion, rising waste volumes and inadequate regulation of waste management. Rahima Indira Hanifa, who studies environmental technology in Bandung (Indonesia), has taken up this problem and developed concepts for improved waste management control: “I would like to help bring the issue of sustainability to the top of the political agenda here.”*

You can find out more about the Environmental Envoys whose projects we are featuring in this Report on page 3.



Science For A Better Life